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MANUAL

OF

ECCLESIASTICAL ARCHITECTURE.

COMPRISING

A STUDY OF ITS VARIOUS STYLES,
THE CHRONOLOGICAL ARRANGEMENTS OF ITS ELEMENTS,
AND ITS RELATION TO CHRISTIAN WORSHIP.

BY

PROF. WILLIAM WALLACE MARTIN.

With over 550 Illustrations.

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To the

REV. ALBERT S. HUNT, D. D.

Corresponding Secretary of the American
Bible Society,
whose Christian friendship and counsel, as God's sunshine,
have blessed my life,
I gratefully dedicate this book.

PREFACE.

THIS manual of Ecclesiastical Architecture was written with love, not alone for architecture, but also for the Christian religion. Therefore, expressions of delight will be found in these pages wherever the architectural form seems the fitting embodiment of the faith and hope which animate Christian life. The noble teachings of the Christ have wrought loveliness in human character, have also led to the rearing of edifices peerless in their beauty.

The illustrations in the manual furnish the facts by which the statements in the text may be established in the main. Those illustrations belonging to the Mediæval styles were taken from German, French, and English sources, and it would be impossible to indicate, gladly as I would, those who gave them first to the public. A few, belonging to the Modern styles, are used by the permission of Messrs. Ticknor & Co., Boston, publishers of the *Architect and Builder*, and foremost promoters of lofty architectural ideals in our own country. Many of the illustrations belonging to the Modern styles were drawn specially for this work.

I would thank Mr. A. W. Whelpley, Librarian of the Cincinnati Public Library, who placed at my service the valuable collection of architectural works under his charge. Every investigator in Cincinnati finds in him a most valuable friend. I would also thank, first, Mr. Charles Crapsey, of Cincinnati, for a valuable collection of photographs and engravings upon Modern Church Architecture, and also Mr. S. R. Badgley, of Cleveland, for similar kindness. These two gentlemen are architects of most approved and high reputation.

Each illustration has been carefully selected and specially engraved for this work. They are so arranged that a study of them, apart from the text, will give a complete view of the development of ecclesiastical architecture. Tables have been inserted which give the principal edifices of each style except the Modern style. A glossary is appended to facilitate the understanding of technical terms. The index is prepared according to topics and places.

May the book teach its readers, that among the many evidences of Christianity, no student may ignore the mighty testimony to its truth and power which the noble cathedrals of Europe, belonging to other times, and the beautiful churches in which we worship, proffer to each thoughtful mind!

W. W. MARTIN.

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Architecture
...of the...
Christian Church.

ALL building, therefore, shows man either as gathering or governing; and the secrets of his success are his knowledge of what to gather and how to govern. These are the two great intellectual Lamps of Architecture; the one consisting in a just and humble veneration for the works of God upon the earth, and the other in an understanding of the dominion over those works which has been vested in man.

RUSKIN.

STUDY OF ECCLESIASTICAL STYLES.

Chapter I.

THE INHERITANCE OF ECCLESIASTICAL ARCHITECTURE.

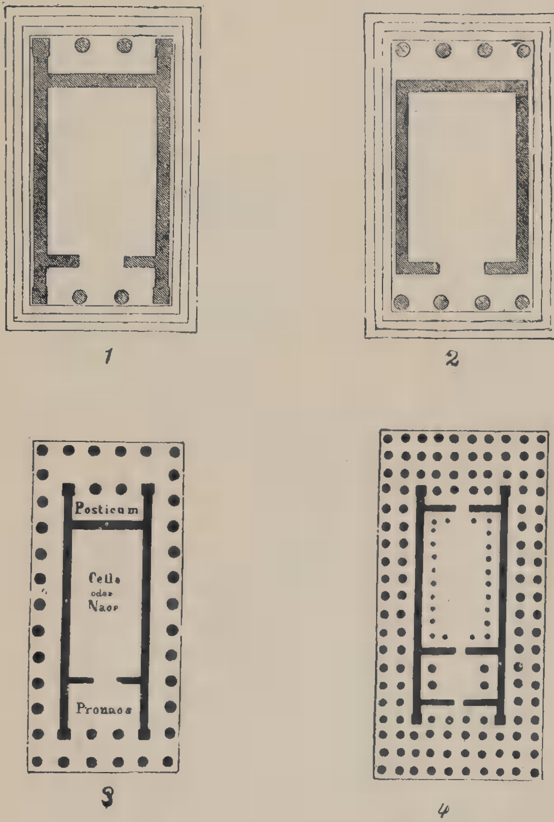
§ **Roman Architecture.** The wealth of Grecian and Roman architecture became the inheritance of Christians in the day of their triumph. Rome received the cardinal principles of art from Greece. But when she applied them, her hand raised mightier edifices than her teacher, and adorned them with greater magnificence. The ancient mistress of the world had brought all countries under her tyrannical though beneficent sway before she built her greatest temples, her largest theaters, and her marvelous baths. She first trained and equipped her legions, so that they were a better protection than fortresses and walls. And later, when she would beautify her imperial city, she wrought out of stone a new majesty, and crowned herself with the splendors of a great architecture.

§ **Grecian Architecture.** Greece created her architecture. She did not improve upon that of a noble predecessor. Her art was as simple in structure as the flowers which bloomed along her waysides and upon her hills. And, if as simple, also as beautiful. Flowers are not without colors; nor were Grecian temples without ornament. But the blossoms we most love are those wherein color and form blend simply and sweetly. This rare charm is in the Grecian art. Ornament but beautifies the form and heightens the attractiveness of the temples of Greece. Moreover, all parts of her edifices were governed by the laws of moderation, and the flower-world is no more under the dominion of symmetry than is Grecian architecture.

§ **Method of Study.** House-building requires a plan, the rearing of walls, and the roof-covering. Yet this all may be done and there be no architecture. Beauty of form and of adornment must first enter before the architectural art can appear. As Greece places Rome under obligation, and as Rome places under obligation the Christian world, when we consider these peoples in relation to architecture, it is simplest to study at first the component parts, first of the Greek, and afterward of the Roman architecture. Yet we may not enter into an exhaustive study; rather, we shall content ourselves with a statement of the geometrical figure, regardless of the dimensions of the plan of a temple; with the form of the parts of a column, neglecting their mathematical relations. And generally, what the eye sees and should discern shall arrest our attention.

§ **Grecian Temple.** The Greek was essentially religious; but a glad contemplation of life, not broodings upon the grave, wrought sunshine in his faith, and he made his temples to look beautiful because he fashioned them in the light of his faith; and where the sculptor carved his ideals, there the painter lured the eye by the charms of color. The typical plan of a Grecian temple was simply a rectangle, having more length than breadth. The style of a temple was determined by the positions of columns and their number in the columnar row which was in front of the temple. There were four styles, dependent upon the position of the columns,

Fig. I.

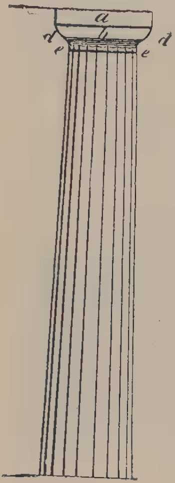


GROUND-PLANS OF GRECIAN TEMPLES.

The temple *in antis* (Fig. 1, *1*) has the ends of the walls built into pilaster-like piers, called antæ. Columns, generally two in number, intervene between these antæ.

The prostyle has a series of columns, generally four of pearls upon it, ornamenting the column as if it was a form graceful as a woman's. The Corinthian mind beheld in the column other significance. The shaft to it was the tree-stem, and the capital was the place for the budding of leaves and the blossoming of flowers. Therefore the echinus becomes most important in determining the order of architecture.

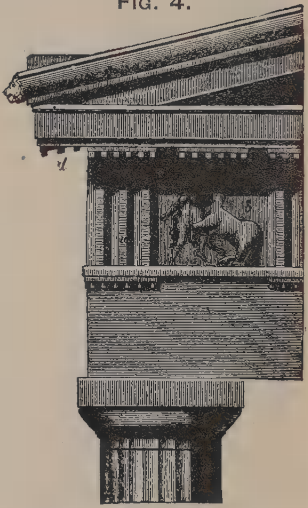
FIG. 3.



DORIC COLUMN.

There are in the Doric entablature (Fig. 4) three parts: (1) the Doric architrave, which is a massive rectangular block reaching from column to column; (2) the Doric frieze, which rests solidly upon the architrave. The two divisions within the frieze are readily observed. Three beams, with their faces against each other, reach from the architrave to the walls of the temple, and their three ends are seen, making the triglyph. Between the triglyphs the second division or metope (*b*) is found. The sculptor often carved alto-reliefs for these metopes, in which were celebrated the deeds of gods and men. It was highest genius which wrought a chief beauty in the early Doric temple by transforming beam-ends into triglyphs, and adorning metopes with splendid sculpture. (3) The Doric cornice

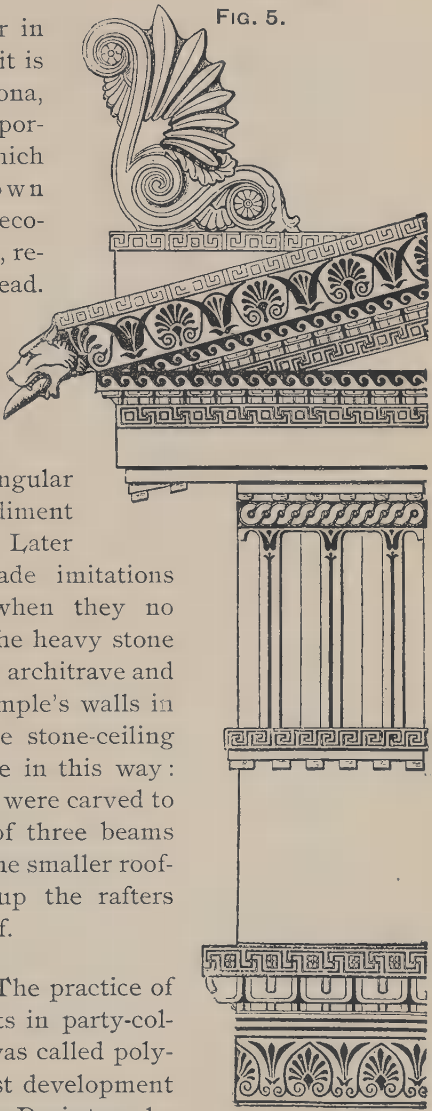
FIG. 4.



DORIC ENTABLATURE.

is the third member in the entablature, and it is composed of the corona, which is the lower portion, and the ogee, which is above the crown moulding and is decorated with gargoyles, resembling a lion's head. Sometimes the ogee moulding, is separated and raised so as to form a gable, which is named a pediment. The triangular space within the pediment is the tympanum. Later Doric architects made imitations of the triglyphs, when they no longer represented the heavy stone beams resting on the architrave and entering into the temple's walls in order to support the stone-ceiling pieces. It was done in this way: quadrangular blocks were carved to resemble the ends of three beams behind which were the smaller roof-beams which held up the rafters and tiling of the roof.

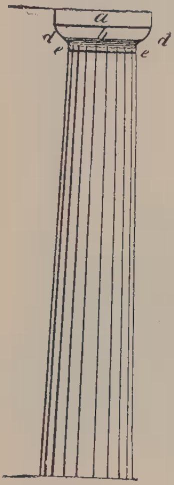
FIG. 5.



DORIC PAINTED ENTABLATURE.

§ **Polychromy.** The practice of painting certain parts in party-colors (Fig. 5), which was called polychromy, had its finest development in connection with the Doric temple, of pearls upon it, ornamenting the column as if it was a form graceful as a woman's. The Corinthian mind beheld in the column other significance. The shaft to it was the tree-stem, and the capital was the place for the budding of leaves and the blossoming of flowers. Therefore the echinus becomes most important in determining the order of architecture.

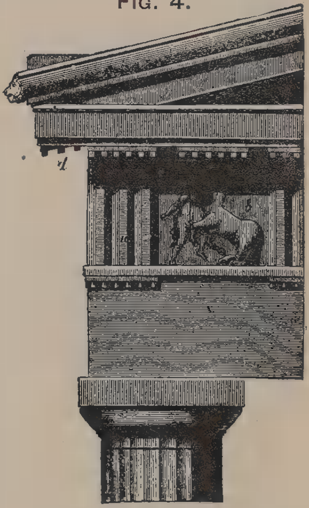
FIG. 3.



DORIC COLUMN.

There are in the Doric entablature (Fig. 4) three parts: (1) the Doric architrave, which is a massive rectangular block reaching from column to column; (2) the Doric frieze, which rests solidly upon the architrave. The two divisions within the frieze are readily observed. Three beams, with their faces against each other, reach from the architrave to the walls of the temple, and their three ends are seen, making the triglyph. Between the triglyphs the second division or metope (*b*) is found. The sculptor often carved alto-reliefs for these metopes, in which were celebrated the deeds of gods and men. It was highest genius which wrought a chief beauty in the early Doric temple by transforming beam-ends into triglyphs, and adorning metopes with splendid sculpture. (3) The Doric cornice

FIG. 4.

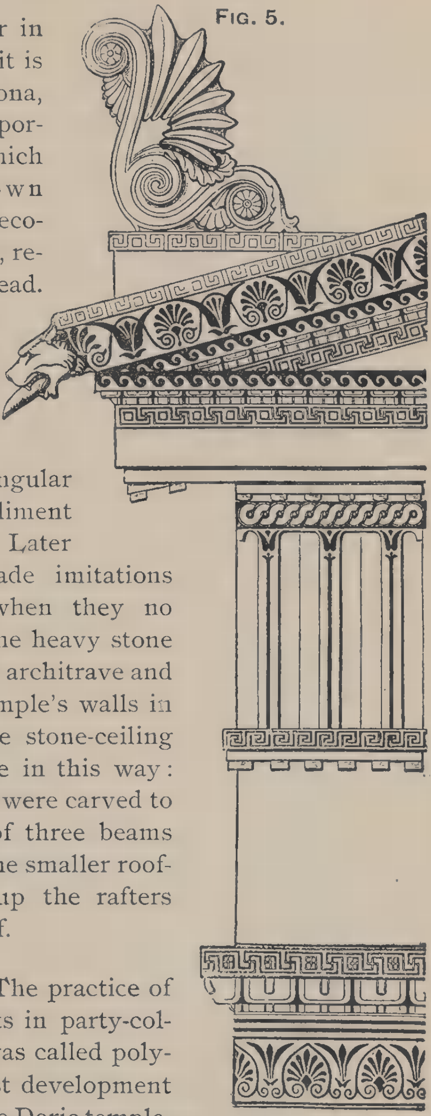


DORIC ENTABLATURE.

is the third member in the entablature, and it is composed of the corona, which is the lower portion, and the ogee, which is above the crown moulding and is decorated with gargoyles, resembling a lion's head. Sometimes the ogee moulding, is separated and raised so as to form a gable, which is named a pediment. The triangular space within the pediment is the tympanum. Later Doric architects made imitations of the triglyphs, when they no longer represented the heavy stone beams resting on the architrave and entering into the temple's walls in order to support the stone-ceiling pieces. It was done in this way: quadrangular blocks were carved to resemble the ends of three beams behind which were the smaller roof-beams which held up the rafters and tiling of the roof.

§ **Polychromy.** The practice of painting certain parts in party-colors (Fig. 5), which was called polychromy, had its finest development in connection with the Doric temple,

FIG. 5.

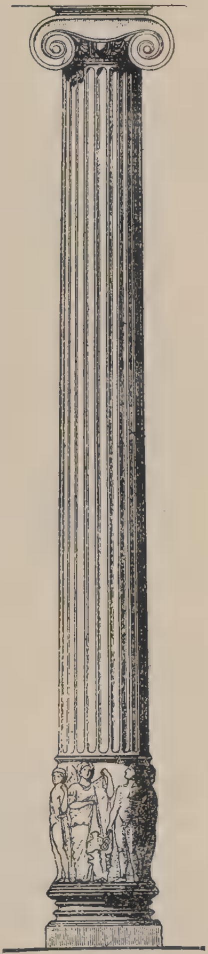


DORIC PAINTED ENTABLATURE.

yet in the portions only where the Greek, with his chisel, had wrought beauty in stone. Polychromy, therefore, became a helpful guide to the eye in separating the members of the order. Transitions of parts were designated by lines and angles, and here were painted beautiful fret-patterns, while designs with curved outlines adorned those parts of the different members of the order most pleasing to the eye. Hence the top of the shaft, the echinus, the upper part of the triglyph, and the ogee, had graceful ornamentation constructed out of curves. The prevailing color in these parts was blue. Backgrounds, such as those of the metopes and tympanum, were of a brown red. The antefixæ were very often beautified with painted embellishments. We are to remember that most temples were built of marble, and that they crowned a hill. How lovely, then, must the Doric temple have looked to one when the clear sunlight of Greece set forth its strong and attractive proportions and touched the colors with which it was adorned into beauty!

§ **Ionic Order.** Earliest Doric temple-architecture was truthful in its several parts. The triglyphs were then in fact ends of beams which sustained the roof. But this method of roof-support was cumbersome as well as heavy. So architects in later times retained the triglyphs for ornament, while they adopted another mode of roofing. Thus the triglyphs lost their truthfulness. Ionic architecture is richer than the Doric, more beautiful and more graceful. This order has the same members as the Doric. But its columns (Fig. 6) are lifted from the temple-platform and set upon bases, and so, through this new feature, greater height is obtained. The Ionic base consists of two parts, the several cavetti and the torus, above them. The shaft is tall and slender. The channeling in it is deeper and more numerous, and the annulets, which separate these channels, have considerable thickness. Sometimes the lower part of the shaft is richly sculptured. But the capital is what gives the most distinctive characteristic to the Ionic column. The echinus is carved into an ovolo and volutes in the Ionic capital. The ovolo is quarter-round, and beneath it is a pearl-beading. Indeed, one might almost say that the neck of the column is ornamented with pearls. The volutes are spiral curves, like tresses curled upon the head of the column. The Ionians felt the beauty and grace of their columns, and they seldom permitted the observer to associate them alone with the plant-life. Rather, they will make us think also of the female figure and of its grace and beauty. A transformation takes place in the abacus, for, instead of being a quadrangular block, it is circular and beautifully carved like a crown. There are three members in the entablature (Fig. 7): the architrave, which is not one large block, as in the Doric, but consists of faciæ, usually three in number, of which each upper one projects slightly over the one beneath it. A moulded band caps this architrave. The member above it is the frieze. There are no divisions here as in the Doric, but paintings were often wrought upon its surface, and often arabesques, beautifully colored. The

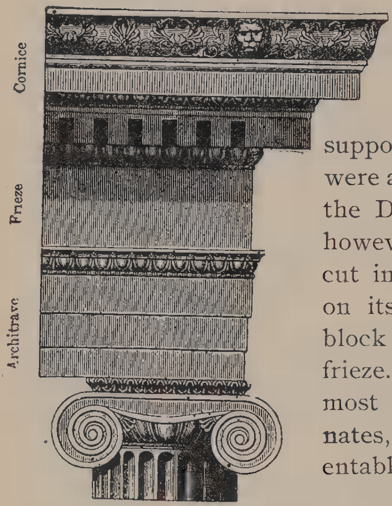
Fig. 6.



IONIC COLUMN.

cornice is the highest member in the entablature. Its corona had beneath what appeared to be small cubical blocks, which are called dentiles. Undoubtedly at first these blocks were but the ends of small beams, used to support the roof, and so were an expedient in place of the Doric triglyphs. Later, however, these dentiles were cut in a quadrangular block on its under side, and this block was placed upon the frieze. The ogee is the topmost moulding, and culminates, with its beauty, in the entablature.

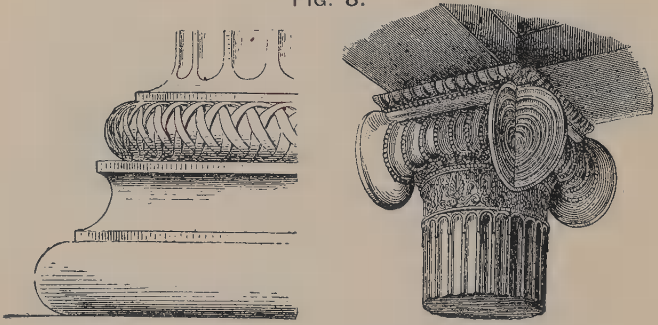
FIG. 7.



IONIC ENTABLATURE.

§ **Modified Columns.** Attention should be directed to the Ionic column (Fig. 8, *2*), in regard to the modifications it suffered when it stood at

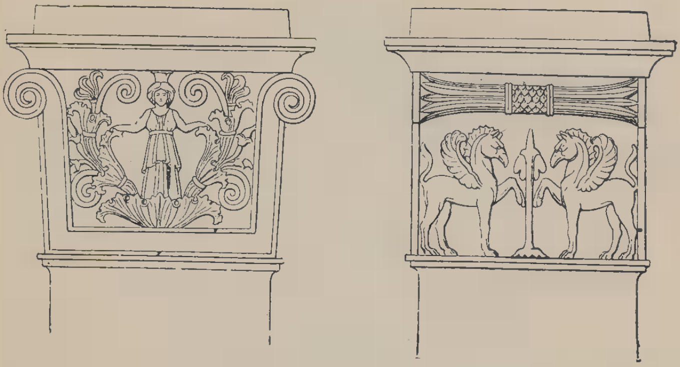
FIG. 8.



1. ATTIC BASE. 2. CORNER CAPITAL.

one of the corners of the colonnade. Then two of its adjacent sides have spool-like forms, with central bands. The corner column necessarily terminates two colonnades, and its capital was so made that its volutes corresponded to the volutes of each colonnade. Hence the peculiar form of this corner capital. And here mention may be made of the pilasters in the Doric and Ionic styles. They were made to resemble columns, but not so as to deceive. The Ionic pilaster (Fig. 9) showed at its summit a kind of capital with volutes on its sides and carvings. The Attic order was essentially the same as the Ionic. However, a new base (Fig. 8, *1*), named the Attic, usurped the place of the Ionic base. In this new base there were two tori, which a single cavetto separated. Attic columns had also, at their neck, what seemed to be almost lace-patterns, between strings of pearls.

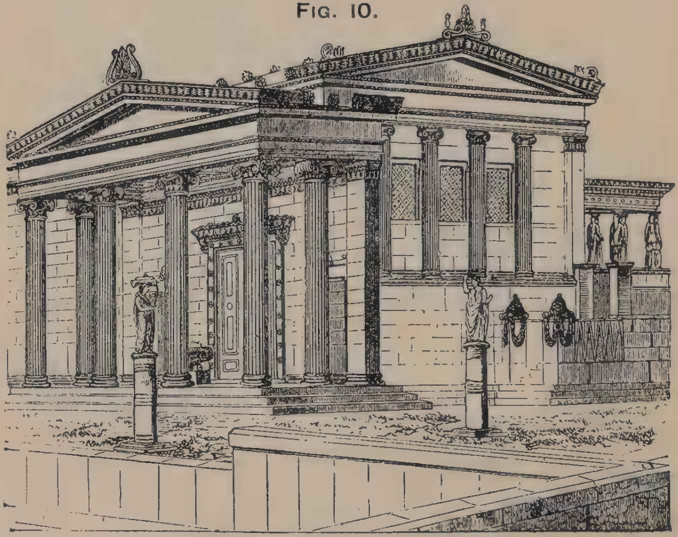
Fig. 9.



IONIC PILASTER-CAPITALS.

§ **The Erechtheum** (Fig. 10). This noble building, which stood upon the acropolis of Athens, exhibits the Ionic style after it had culminated into its greatest elegance and splendor under the skillful hand of the Athenians. The appearance is that of a group of buildings: the central one is the southern end of the temple proper of Minerva; the western side, before the temple's portal, has a beautiful vestibule, which is surrounded with six Ionic columns; the eastern side has the hall, dedicated to the Nymph Pandrosos, the entablature of which is sustained by the much-praised caryatides, being female forms, sculptured in stone, and substituted for columns. It does not appear that this form of column found especial favor with the Greeks. Not the strength, but the fragile grace of the female figure, was a cardinal thought with the Grecian. Hence the caryatid was an affront to his taste. However, the skill of the sculptors, who gave to stone power to express the flowing drapery of a woman's

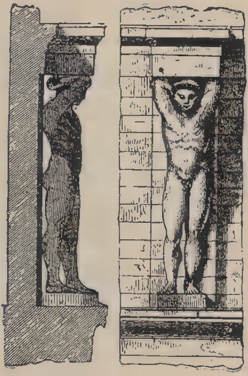
FIG. 10.



ERECHTHEUM.

garment, revealing also the mantled grace of her form, compelled the consistent Greek to accept this anomaly in his architcture with admiration. The Atlantes (Fig. 11) were more in harmony with the demands of architecture and the expectation of a Grecian.

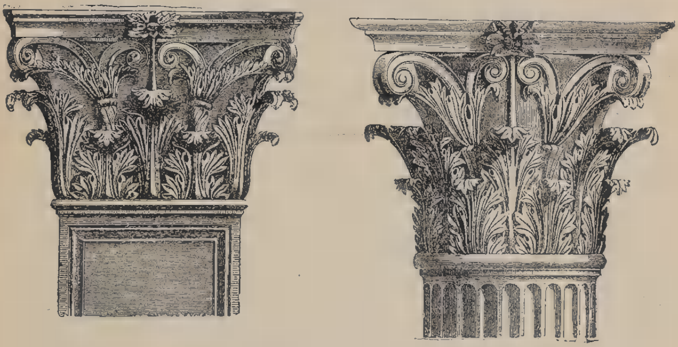
Fig. 11.



ATLANTES.

§ **The Corinthian Order.** Its essential characteristic appears in the capitals of its columns, and also, among the Romans, in the gorgeous splendor of its entablature. The astragal (Fig. 12) separates the capital from the shaft. Above it two rows of acanthus-leaves rise, one row smaller and springing between the interstices of the other. Behind them there come up strong stems, which curl and form graceful volutes, which the taller acanthus-leaves touch and adorn. The capital is divided by the volutes into four faces, wherein are acanthus-

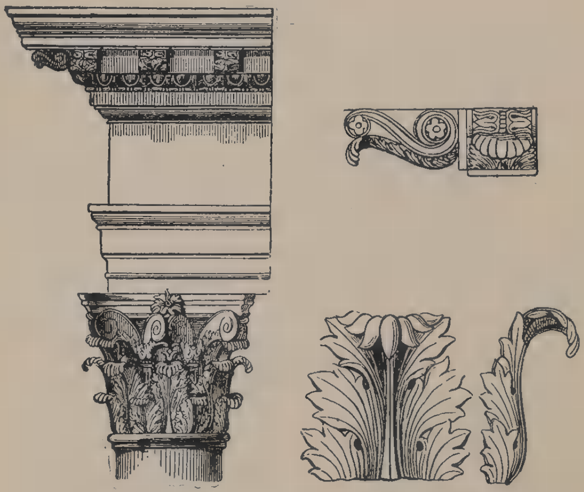
Fig. 12.



CORINTHIAN CAPITALS OF A PILASTER AND A COLUMN.

leaves, a central one being higher than the adjacent ones, and above this tall leaf is a flower. The abacus is a square with incurving sides, whose corners rest upon the volutes of the four branches. Its center is supported by what appears to be a truncated stem. The Corinthian capital reminds us of a tree-growth, arrested in order that its strength of stem may be employed for support. The top has been lopped off, the branches whirled into volutes, and the circle of fan-like leaves retained for their beauty. That the Corinthian capital is a flower-calyx is hardly an acceptable view, since we do not associate strength with a flower-stem. The Ionians indicated to us the grace and beauty of their columns by ornamenting the capitals with curls and placing upon their necks strings of pearls. The Corinthian pilaster (Fig. 12) tells its own nature. It stands at the wall-

Fig. 13.



CORINTHIAN ENTABLATURE, WITH DETAILS.

corners or spaces the walls into compartments. Moreover, it is ornament, reminding the observer of the columns in front, resplendent with natural beauty.

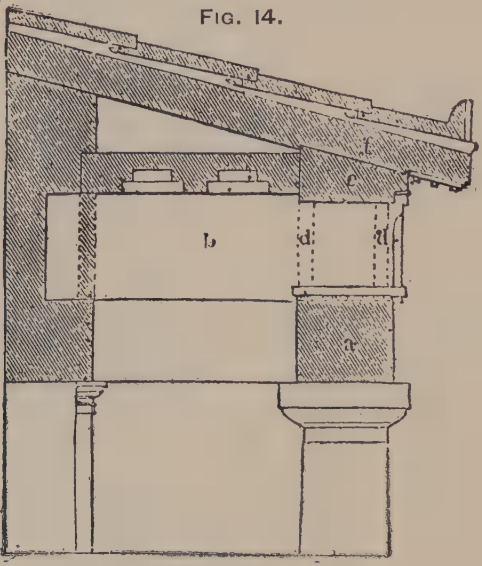
The entablature of the Corinthian order (Fig. 13), like the column, is most luxuriant in its beauties. The plainness of the architrave above the splendor of the capitals empties the mind of its admiration only that again it may become most enthusiastic in seizing upon the marvels of the frieze, whereon gifted artists arrayed all that their genius and hand could devise and execute. The cornice crowns the summit of the buildings, and is supported by the modillion, which is a scroll-bracket, ornamented beneath with the acanthus-leaf.

The eye is constantly addressed by the Grecian artist. The charm of column and entablature makes the first appeal; then the beauty of capital, and metope, and cornice; then, as the beholder walks around the edifice, his eye catches the charms in the graceful lines of the border and the ceiling, enriched with both leaf and geometrical forms.

The Greek carefully hides all mechanical contrivances. The spaces between beams he fills with a ceiling, which he decorates with embellished scrolls and other forms of exquisite designs. Where entablature and rafters meet, he marshals all the complex beauty of the cornice and the frieze, that he may conceal beam and rafter ends. Yet in all this he was led by no ignoble pride, but rather was actuated by a desire to confer just reward for service. Where the column begins to sustain, he adorns it with a capital; and where the entablature first lends support to the roof, he places the cornice. Greek architecture was ever noble in its spirit, and so it rules amid the architecture of other nations: it was ever beautiful, through its proportions and decorations, and so it charms all after ages; it was true in its principles, and so it abides.

§ **Roof and Ceiling.** The entablature of the Grecian orders was but the necessary stone construction upon which the architect purposed to rest securely the ceiling and the roof of his building. The architrave (Fig. 14, *a*), stretching from column to column, furnishes, with the wall of the cella, support for the stone beams (*b*) of the ceiling. The ends of these blocks formed, at first, the triglyphs. The metopes (*d*) are the intervening spaces. Flat stones slightly project over these triglyphs (*c*) and give support to the corona (*f*), which, in its turn, holds up the tiles. Later times displaced the heavy stone beams of the ceiling by lighter construction; then the triglyph was represented by a cubical block having its outer face sculptured to imitate beam-ends. The difference between the builder and the architect is apparent as soon

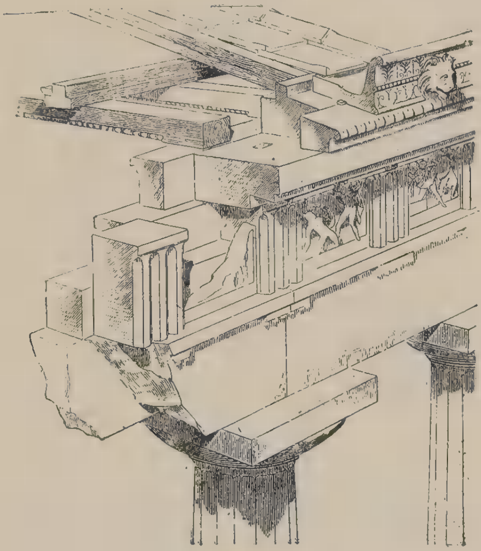
FIG. 14.



CONSTRUCTION OF ENTABLATURE.

as this construction, when perfected (Fig. 15), is viewed. Between the triglyph-blocks are inserted the metope-slabs, whereon myths of gods or the battles of heroes were carved. Above and below the triglyphs, guttæ were placed, and the tile, resting upon the cornice, was, so to speak, bent upward to check the water. The outer face of it was there figured with leaf-patterns; and where it is perforated to let the water in this gutter flow off, a gargoyle—here having the form of a lion's head—is placed. The Grecian architect builds only to beautify, and hence the charm of his creation.

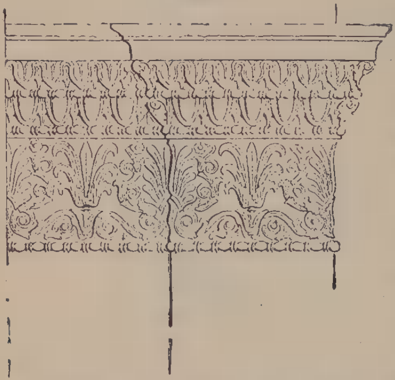
Fig. 15.



ITS ARTISTIC FEATURES.

§ **Wall Decoration.** The wall-border and pilaster-capitals (Fig. 16) have, as ornaments, the acanthus-leaf and beautiful scrolls. Yet here invention was free to work its will, provided it gave forms of beauty to the eye. Sometimes the artist wrought in the border and the pilaster (Fig. 17) animal forms. Yet such forms only as had passed through the land of myths and were associated with wonderful stories.

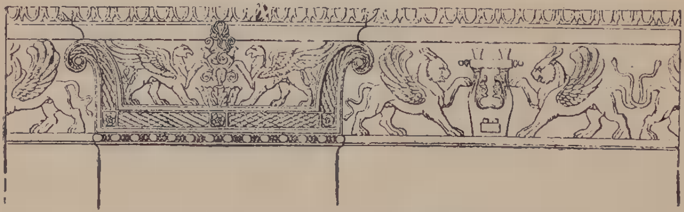
FIG. 16.



ANTÆ-CAPITAL AND WALL-BORDER.

§ **Grecian Portal.** The doorway was simply jambs united by the lintel (Fig. 18). The Greek, because of his love of the beautiful, recessed the jambs, cut rosettes in their front faces, placed a cornice, replete with beauty, above the lintel. The portal was simple in form, yet its splendor gave dignity to the entrance of the temple. The ornaments of the lintel are the same as those of the capital, being ovolos and acanthus-leaves. And that we might not fail to compare the glory of the doorway with that of the column, the sculptor carves a kind of volute upon the corbel supporting its cornice. The three great orders, the

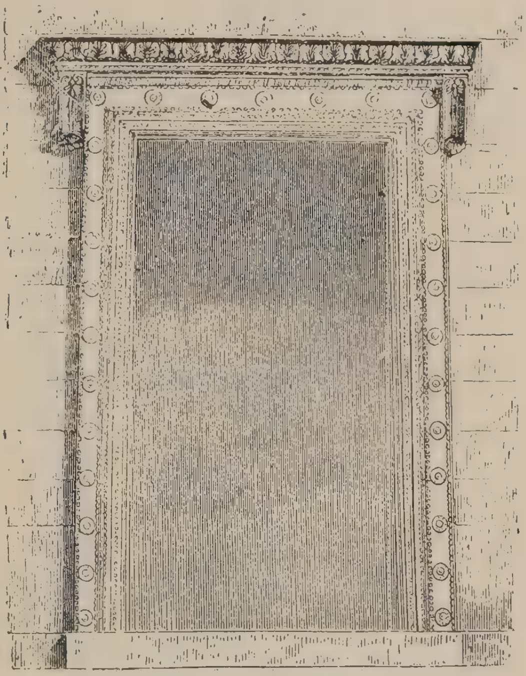
FIG. 17.



WALL-BORDER AND PILASTER (ERECHTHEUM).

Doric, Ionian, and Corinthian, including the ornamentation of the entablature, were a most precious inheritance for ecclesiastical architecture from Greece. They taught the architect of the Christian world that stone could be fashioned into marvelous beauty, and that edifices of perfect symmetry, adorned with sculpture and painting, were one of the thank-offerings of the pagan world to their gods.

FIG. 18.



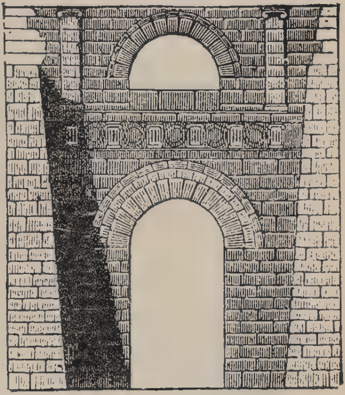
PORTAL OF ERECHTHEUM.

§ **Etruscan Architecture.** The Romans employed a fourth order, known as the Tuscan, which is traceable to the Etruscans and resembles the Doric order. They also formed the Composite order, where the capital appears as a blending of the Ionic and Corinthian. Yet Roman architecture has not its great significance, nor did it achieve its greatest development, in the use of columnar orders for support and in the modifications of the capitals of these orders in order to secure new beauty for Roman structures. It was in the revolutionary employment of these orders simply as decorative ornaments that Roman architects showed their transforming hand; for what Greece required for support, Rome needed only for decoration.

It may be said of Roman architecture that wherever the columns of the various orders entered into an edifice as essential elements for the purpose of support, the Romans held strictly to the noble principles of construction which Greece had perfected. But the orders became simply decorative features of a building, when the Romans began to use the arch for constructive purposes instead of the column and its architrave. Rome formed her government and conquered the world before she changed the brick buildings of her city into marble edifices. It was from Etruria that Rome obtained the essential features of her constitution. The official dignity of the Roman government was expressed by the purple robe, the pretexta, the twelve lictors and fasces, the curule chair, and triumphal processions. Yet these all are Etruscan. But the Romans united to these symbols of her government a majesty and a might which the Etruscan originals scarcely foreshadowed. Likewise, when Rome adopted the arch and the arch-vault, both Etruscan in origin, she developed then the peculiar and all-important features of her architecture, all, indeed, which may be called Rome's contribution to the architectural art. In this period structures were produced in

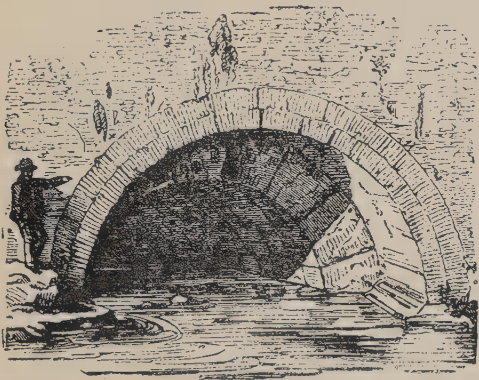
Rome which have been the wonder and have called forth the admiration of all later times. For Christian architecture these new features have the utmost significance. Rome received the gift of the three great columnar orders from Greece. Rome received also from the Etruscans the arch and the arch-vault. Then her architects dared to construct with the arch, to roof with the arched vault, and to relegate column and architrave to serve as decorative elements. The Etruscans used the arch in the walls of their cities. The gate at Perugia (Fig. 19) has, instead of a lintel, an arch. There is above the gate a semicircular window, ornamented with pilasters. The Romans saw immense significance in this mode of piercing walls. They extended the principle to the walls of public buildings, and built with the arch their baths, theaters, and public buildings. The Cloaca Maxima

Fig. 19.



CITY GATE, PERUGIA.

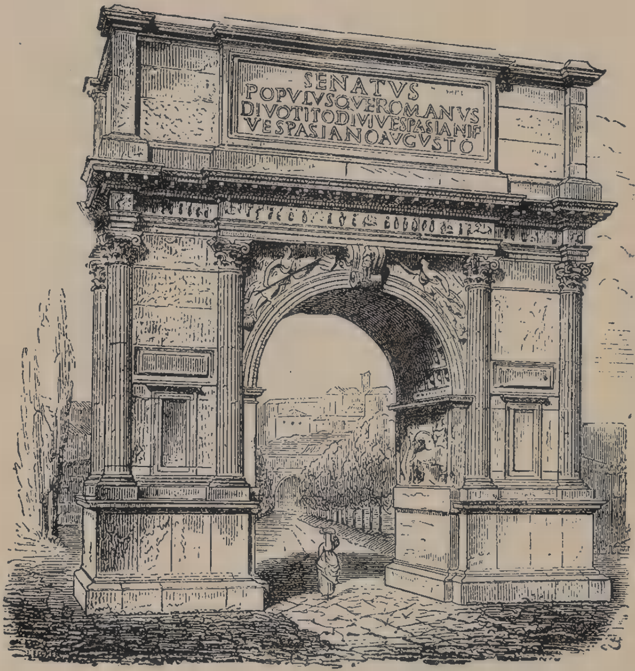
Fig. 20.



CLOACA MAXIMA, ROME.

(Fig. 20) was equally suggestive to the Roman architect. The Etruscans built this immense viaduct in the sixth century B. C. It was a circular vault spanning twenty-six feet.

FIG. 21.

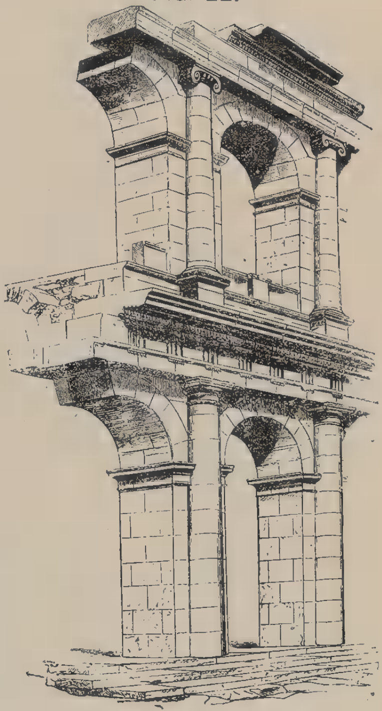


ARCH OF TITUS.

§ **Roman Adaptations.** The Romans lifted the circular vault above ground, and wrought marvels of beauty in their edifices by means of the Etruscan circular arch and circular vault. The days of the Cæsars witnessed the noblest employment of the arch and the arch-vaulting. The grandeur of her architectural works in this period, like the grandeur of her extensive government, will always excite the intelligent observer to highest admiration. It is true that the exquisite perfections in every part and ornament of a Grecian building were unsought by the Roman emperors when they began to build with the help of the arch; yet they made compensation by rearing colossal edifices and adorning them with luxurious extravagance.

§ Circular Arch. The simplest use of the arch is beautifully shown in that triumphal arch (Fig. 21), which Titus, in perhaps 70 A. D., built over the principal highway of Rome. The solid, pier-like abutments, each set high on a mighty base, declare that a support other than the column is now employed; and the engaged Corinthian columns manifest that the chief use of the orders now is to decorate. The arch supports the attic or half-story above. A compartment of the Theater of Marcellus (Fig. 22) will make clear how the arch was used in the elevation of the walls of a building. Remove the attic from the Arch of Titus, and place above the arch another of similar kind, and all that is essential in the construction of the walls of this celebrated theater

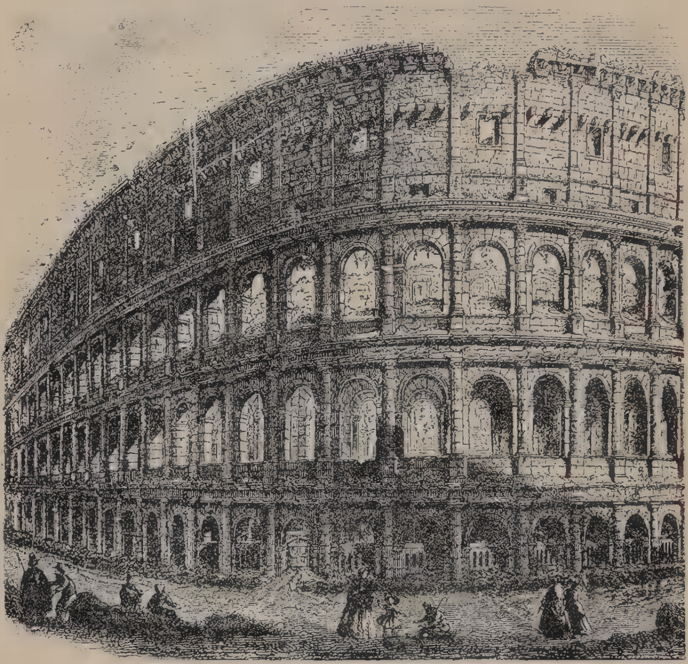
Fig. 22.



THEATER OF MARCELLUS.

is obtained. Its decoration is obtained through the two orders, the Doric and the Ionic. Below is the substantial Doric order. All its parts are distinguishable, the architrave, the frieze—including triglyphs and metopes—the cornice. The more graceful and slenderer Ionic order gives ornamentation to the second story. The coliseum (Fig. 23) shows most daring confidence in the strength of this mode of construction. Three arches are piled upward, one above the other, and as if to show the mighty strength in this arch-pierced structure, a story is made

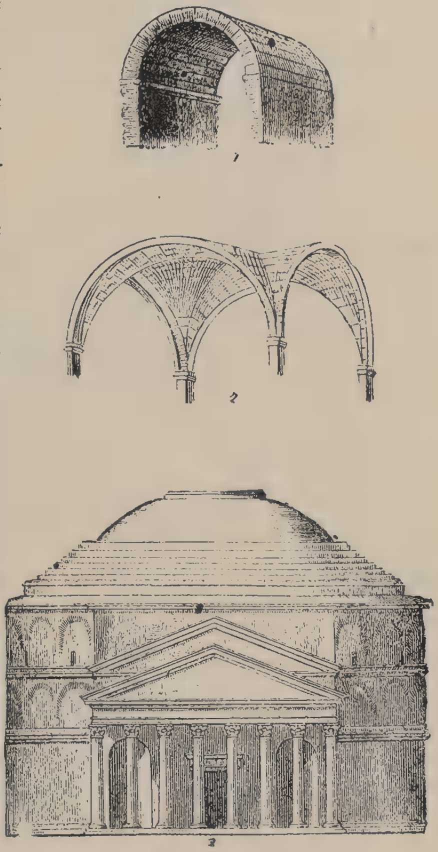
FIG. 23.



COLISEUM AT ROME.

to surmount all, which is higher than the stories below, and almost a solid wall. As regards the decoration, the lowest story is the Doric order; the second, the Ionic; the third, the Corinthian; and the fourth has slender pilasters, with Corinthian capitals. The Romans made another use of the circular arch. They formed them into graceful arcades for wall-decoration, placing within them niches for statues of gods and heroes. The architects of every age since, and so Christian architects, are indebted to the Romans for the noble examples, which they gave to the world, of the use of the circular arch in wall-construction, and of their use of the columnar orders in classical architecture for wall-decoration.

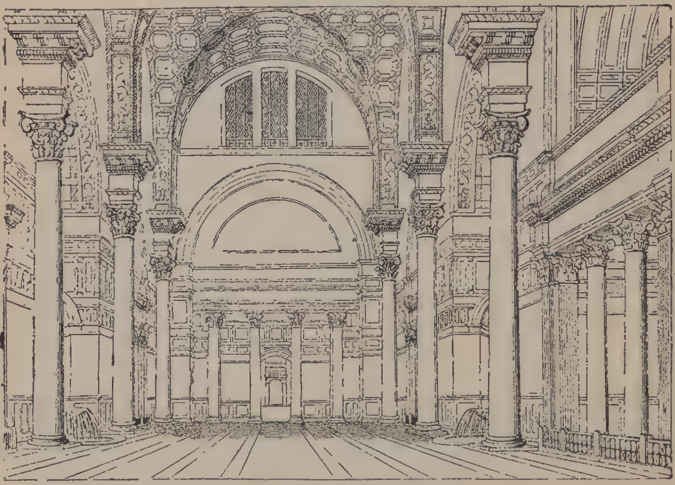
FIG. 24.



CIRCULAR-VAULT. CROSS-VAULT.
DOME-VAULT.

§ **Kinds of Vaults.** The circular-vault (Fig. 24, *1*) is a series of semi-circular arches, set side by side, and having a continuous wall upon which the feet of the arches rest. The side-thrust of the vault is counteracted by buttressing. The cross-vault (*2*) is composed of two circular-vaults, cutting each other centrally and at right angles. The result is that there are four feet to this vault, and they rest on four piers or columns. The thrust is concentrated at these four points, and here is built the buttressing. The dome-vault (*3*) is a series of contracting circles, laid one upon another until, at the top, a circular disk can close and complete the structure. A circular-vault roofs a passage-way, having on each side a wall; the cross-vault roofs a square, having at the corners piers for support; the dome-vault roofs a circle, but the Byzantine architects compelled the dome to roof a square by means of arches and pendentives.

FIG. 25.

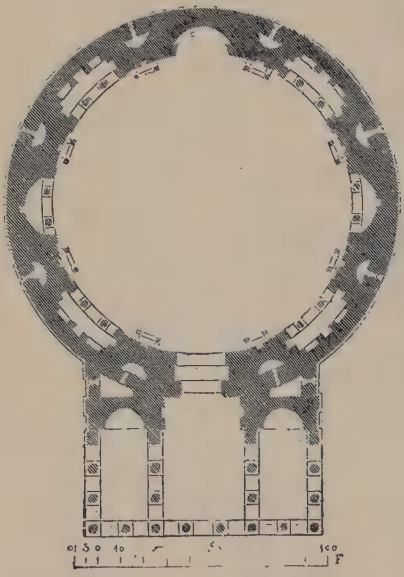


BATHS OF CARACALLA.

§ **Cross-Vaulting.** The grand hall in the Baths of Caracalla (Fig. 25) was roofed over by means of the cross-vault. Beautiful Corinthian columns marked off squares in the length of the hall. Since the pressure of the cross-vault is concentrated at four points, there was no need of a continuous entablature upon these columns; therefore it was cut away between each two columns. The sides of what remained were finished to correspond with the front. Here, then, is a column with an entablature of its own. The cross-vault was set upon these entablatured columns, and its ceiling was richly and beautifully ornamented. The transforming hand of the Roman is again visible in this construction. He was the first to employ the column-orders in a new way. The Greeks used them to give support to the roof; and they made the columns most beautiful, that they might be honored for their service. The Romans took these same orders and made them simply the external ornaments of their edifices. The Greeks required a continuous architrave to sustain their ceilings. The Romans, as if disdaining such suggestion, removed the architrave from between columns, and rested their cross-vault for the ceiling on what remained. The cross-vault, as applied by the Romans, furnished a most essential element in that wonderful preparation for ecclesiastical architecture which Greece and Rome, more than all other nations, made, and in the midst of which, or else on its ruins, ecclesiastical edifices rose in beauty and splendor.

§ **Dome-Vaulting.** The Pantheon is the peerless example of the dome-vault. Heretofore the dome had been used as a kind of canopy to cover a small space; now, the Romans employed it to roof over a large area. Rome, after she conquered the nations, gave them laws; but permitted them to retain their national religion.

FIG. 26.

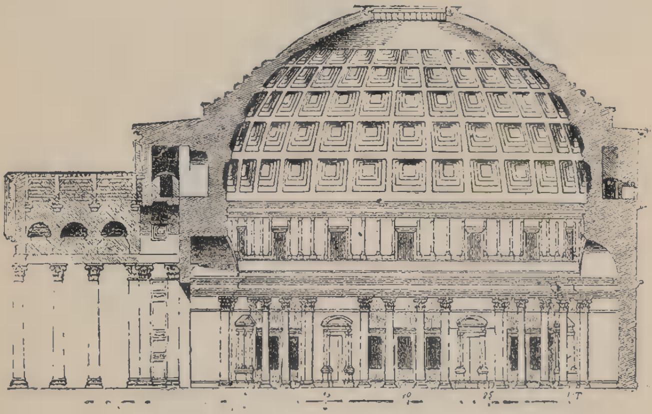


GROUND-PLAN OF PANTHEON.

Hence the Roman empire was united through its uniform laws, while there was within it great diversity of religion. It was a bold, indeed, a new thought to build a temple wherein all the gods of the empire should each have a shrine; yet this thought inspired the building of the Pantheon. The circle (Fig. 26), symbol of divinity, was the ground-plan. Stone-circle was laid upon stone-circle, until the elevation was builded. This cylindrical portion was the tambour. Then the stone-circles were decreased in diameter, until the roofing-dome was formed. There was a beautiful portico in front, with splendid columns; and from this portico there led an entrance-way, which was roofed with the cylinder vault. The interior wall (Fig. 27), beneath the dome, was divided into two stories. The lower was encircled with a beautiful lofty colonnade, within which were niches for the statues of gods. Above was the second story, being a circle of columns, with niches within. The dome above this was richly paneled with circles of diminishing squares. Such was the Roman Pantheon, a structure so new and beautiful, as well as daring, that Michael Angelo, when he was completing St. Peter's at

Rome, the largest Christian church in the world, could invent nothing greater, and so he raised above the crossing in St. Peter's a structure like the Roman Pantheon.

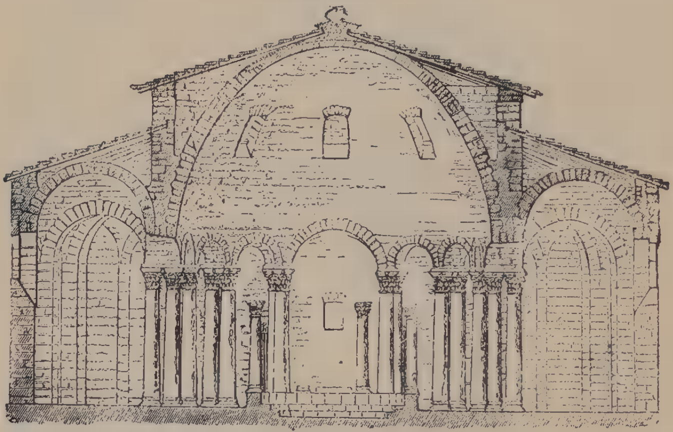
Fig. 27.



DIAGONAL SECTION OF PANTHEON

§ **The Free Dome.** There was a small temple erected at Nocera with most remarkable variations, so far as the support of the dome is concerned. Fourteen pairs of columns were placed upon the circumference of a circle, each pair with its own architrave. Low arches rest upon these separate architraves, and upon them were laid the dome-circular courses, each diminishing until they completed the dome. Outside of the dome, yet resting, like it, on the circle of double columns, there was built a hollow cylinder to the height of half the altitude of the dome. The dome-roof was supported by this cylinder. A circular wall was built around this central structure, and a tunnel-vault connected it with the dome-arches, which were above the double columns. The dome is thus set free from the exterior wall; and yet the tunnel-vaulting, with the outer wall, acts as a buttress to the side-thrust of the dome. It is a modest temple (Fig. 28); yet all the glory of the Pantheon had in it no suggestion comparable in importance to that given to later architects, when the builder of this crude structure bound together two columns with an architrave, placed fourteen of them in a circle, and set thereon a free dome. A Roman Bacchus temple (Fig. 29) presents a free dome, to which is added a further and most significant modification. A hollow cylinder is set with its base upon the arches, and the dome, pierced by twelve windows, is placed upon it. There is, in consequence, a new and beautiful grace given to the temple. Prophet truly, in the heathen world, is this dome, supported upon columns, of the coming of St. Sophia and St. Peter and England's St. Paul, all of whose attractions culminate in the magnificent splendor of their domes.

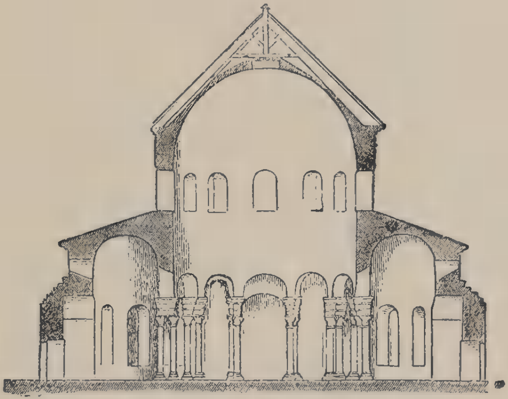
FIG. 28.



SECTION OF TEMPLE AT NOCERA.

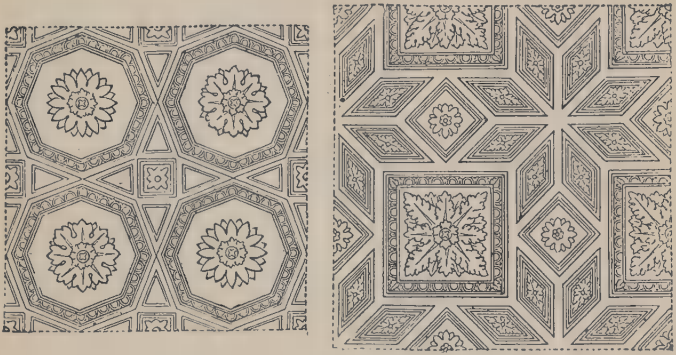
§ **Geometrical Decoration.** Some idea of the rich embellishment of ceilings in classical edifices may be obtained from Fig. 30. Here the beautiful pattern-work, formed of geometrical figures, was very attractive and full of suggestion for later times, which imitated, but never excelled, the originals.

Fig. 29.



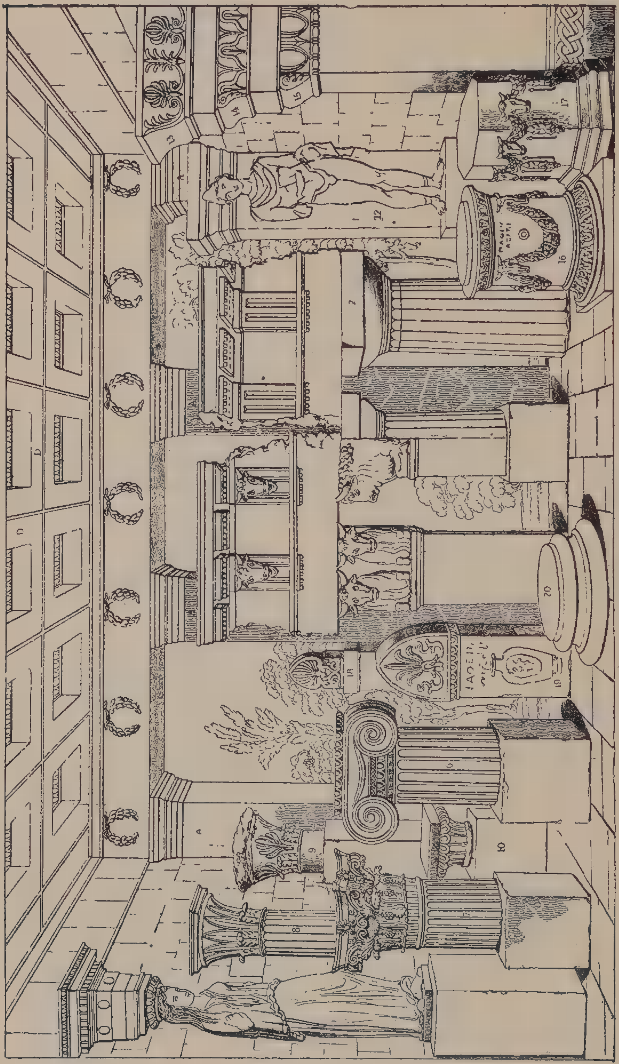
SECTION OF A ROMAN BACCHUS TEMPLE.

Fig. 30.



GEOMETRICAL PATTERNS.

Fig. 31.

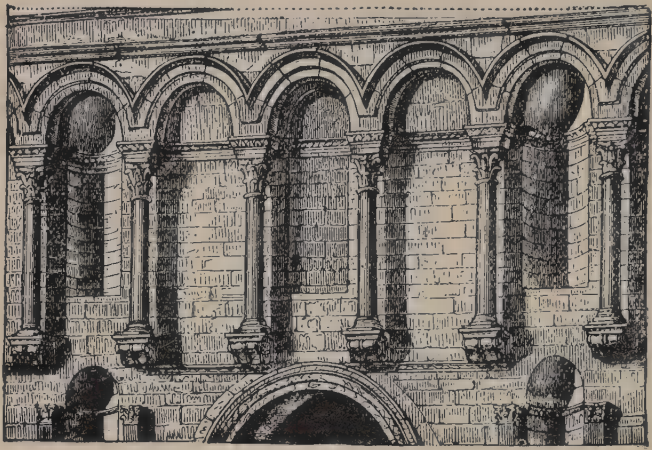


GRECIAN DECORATIVE ELEMENTS.

§ **Grouped Decorative Features.** Two Doric entablatures (Fig. 31) are centrally placed, showing the corona and the mutules of the cornice, the triglyphs and metopes of the frieze, with the supporting columns. The drops under the mutules are the guttæ. A strange modification is seen in one of these Doric entablatures. The triglyph is ornamented with a bull's head, and the front half of the column is square, being surmounted with the busts of kneeling bulls. One corner column is turned so as to show the two sides of this modified Doric column. On the left are Ionic and Corinthian columns. The varieties in the foliation of the Corinthian capitals remind one of the experiments which the Greeks made before they achieved the symmetrical beauty of the acanthus-leaf capital; for one of these capitals is bell-shaped, having a crude flower with a stem placed at intervals around it; another seems but a circle of pointed leaves bound about the capital; while a third exhibits the rich beauty of the perfected Corinthian capital. On the left is seen also the caryatid, a female form, supporting an entablature. Such a column would be grotesque if the beauty of the figure did not hide its absurdity. Greek altars are arranged at the right, and a square column, whose front is adorned with the human figure. Here also, upon another square column, are to be found the moldings, known as the ovolo; above it, the cyma reversa; and above this, the cyma recta. These, and many other forms, became familiar to the early Christians, who employed them to give the charm of ornament to their churches.

§ **Decorative Arcade.** A fragment of an arcade, taken from the palace of Diocletian at Spalatro, is most important. It was part of the entrance-façade. Alternate arches held niches for statues of men or of gods.

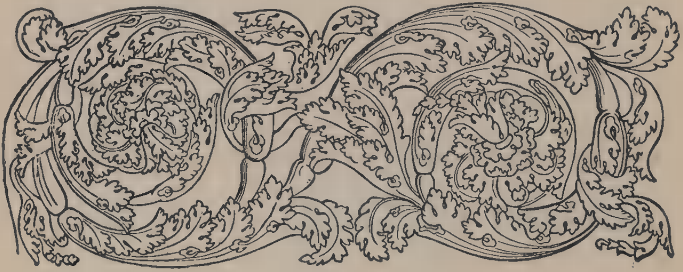
FIG. 32.



DECORATIVE ARCADE.

Two important suggestions are connected with this fragment (Fig. 32); namely, that the arcade made a most graceful mural embellishment, and that within its arches might be placed statues of saints and apostles.

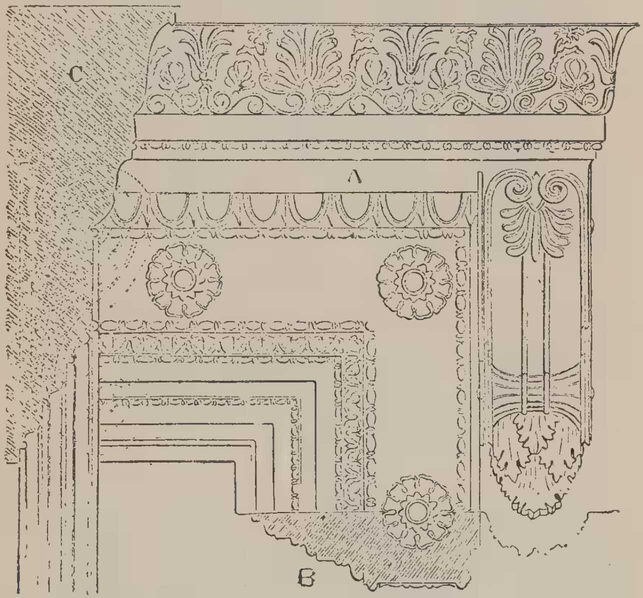
FIG. 33.



ACANTHUS-LEAF SCROLL.

§ **Decorative Foliage.** Nature gave great and beautiful forms in its vines and leaves. Nor were the ancient artists unmindful of her innumerable suggestions through the plant-world. An ancient cornice ornamentation (Fig. 33) exhibits leaves artistically united together, obliterating all natural lines; yet there are hints of nature in the design. The leaf-receptacle is present, and also the leaf-lobes and clefts. It is an artistic form, and in no sense imitative.

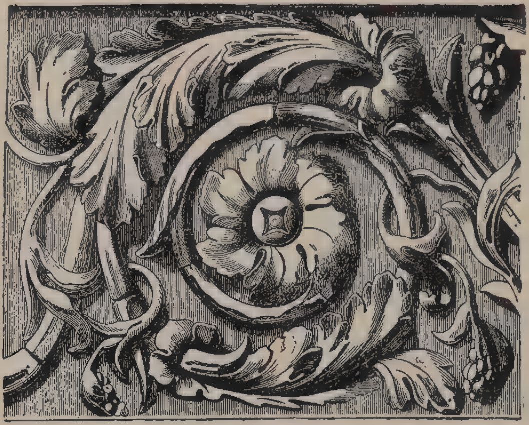
Fig. 34.



ACANTHUS-PLANT AND ROSETTES.

A similar artistic treatment of the acanthus-plant is seen in Fig. 34. It is as if the outlines of a shadow of the plant had been copied by the sculptor and placed in the molding of a cornice. There is a chaste beauty in this mode of ornamentation which imitative forms lack, and it appealed strongly to the Greek.

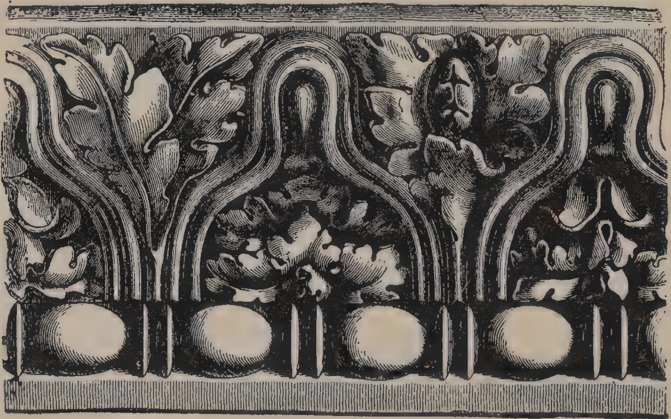
FIG. 35.



VINE-FOLIAGE.

Otherwise is the foliage in Fig. 35. The vine-stem runs along the surface. Bracts, leaves, tendrils, clusters, all shoot forth from the vine. There is masterful imita-

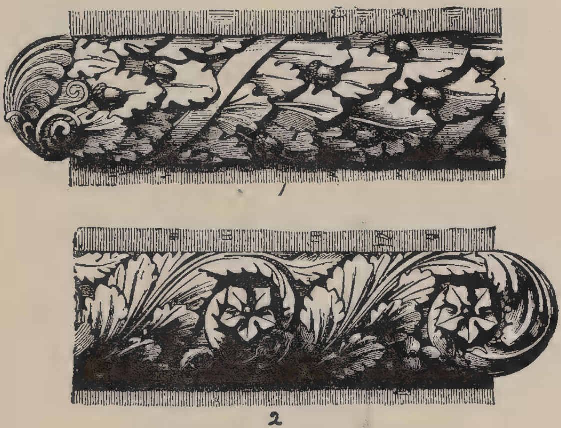
FIG. 36.



LEAF AND BEAD DECORATION.

tion here. The maker takes from nature his forms, but he bends them as he will, in order to make the vine grace the surface of the frieze. In another ornament (Fig. 36), the leaves are plucked and arranged to suit the artist's taste. Or the oak-leaf and the acorn (Fig. 37) are arranged in circles, and bound fast together by a spiral band.

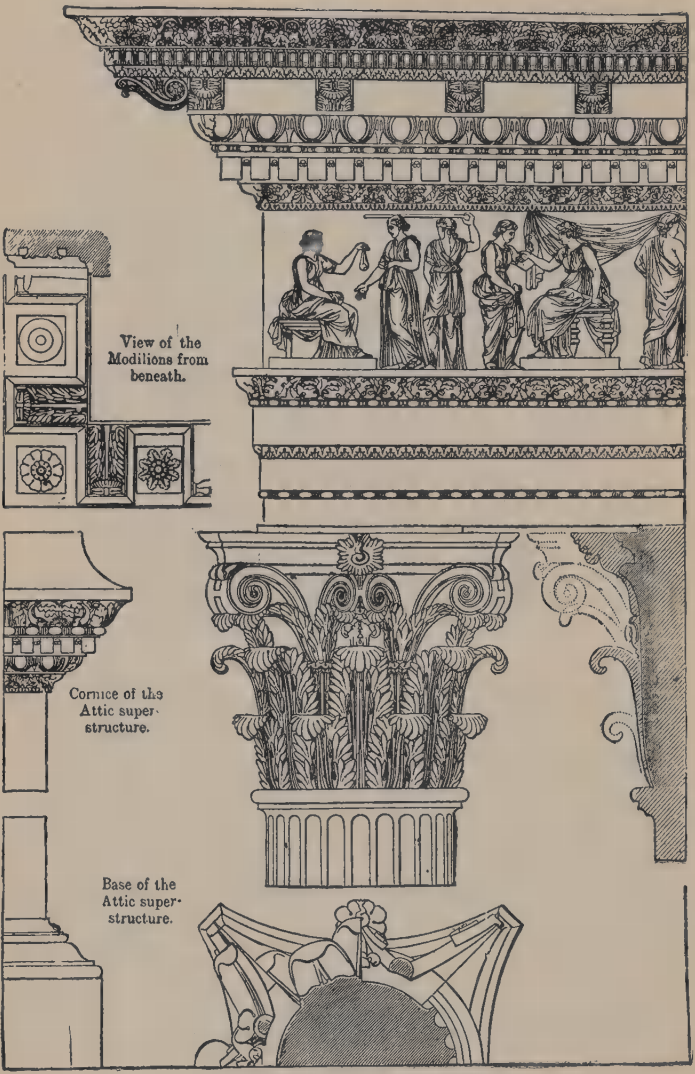
FIG. 37.



LEAF AND ACORN DECORATION.

Of boundless fertility were these Roman architects and sculptors, and their hands built with marvelous beauty their inventions. Stone seemed like clay in their hands, to be moulded into leaf or flower at their will. Stone seemed, in their view, to have lost its weight; for they raised story above story in their buildings, and gave the appearance of great solidity to the upper parts. A walk among the ruins of their forum, or through the halls of their public baths, or in the great circular area of the Coliseum, is sure to awaken in any intelligent observer ever-increasing wonder and admiration for them.

FIG. 38.


View of the Modilions from beneath.
Cornice of the Attic superstructure.
Base of the Attic superstructure.

ANCIENT ROMAN FRIEZE.

An ancient Roman frieze (Fig. 38) will illustrate most suggestively the wonderful inheritance which was left to ecclesiastical architecture. The cornice, with its crown-molding, modillions, ovolo, dentiles, all richly ornamented; the frieze, with its ornamented border, and its broad face replete with the grace of symbolic female forms; the architrave, with its borders upon the faciæ; the column, with its wonderful capital,—all were combined in rich harmony, and made the building resplendent with all these marvels of art. The Christian architect despised none of these achievements of pagan Greece and Rome; and, after centuries of effort, he produced cathedrals which, for daring of construction and sublime effects, for beauty of ornament and symmetry of form, excel all edifices which the hand of man, in any age, has ever fashioned.

Chapter II.

BASILICAN STYLE—EARLY CHRISTIAN ARCHITECTURE.

§ **Method of Study.** Some general statements relative to ecclesiastical architecture as treated in Part First should be given. It is our purpose to study the type of the church-edifices; also to notice modifications of this type when they were anticipatory of nobler developments in later times. The great life of the Church, as it assumes new liturgical forms in order to give elaborate expression to its abounding fullness, will not come here in review; nor will it receive any mention except where it can not be avoided. Simply the study of structure is the aim of this division. Of course, the simplest form will come first under consideration. The actuating power, which first determined the form, will be sought. As we pass from century to century, there will appear new forces, which unite and form modifications of the first type, culminating finally in the gorgeous splendors of the Romanesque church, or in the perfected beauty of the Gothic cathedral.

§ **Controversy Avoided.** The settlement of questions is in nowise undertaken. Whole books have been written upon such themes as, that the Christian basilica is but a transformation of the Roman basilica; that the Gothic arch, or pointed arch, was no invention of Europe; that the noble vistas of Germanic forests were not the impelling suggestions which resulted in the Gothic nave; that the term Gothic is a misnomer for the architecture which it characterizes. These are all interesting questions, but no answer to them is to be sought in these pages. Yet this we do say, that earliest Christian history affirms that Christians called their churches basilicas, because in them they worshiped God their King. This statement we count more authoritative than inapt and inconsequent analogies which have been drawn between the Christian and Roman basilicas. Also, when the daring Christian spirit of Western Europe seized the pointed arch, and wrought undreamed effects through stone, we are sure that the Italians, in reproach, called the architecture Gothic; for it completely abandoned the classic models, and what was not in harmony with these, to the Latin mind, was barbarous; hence, Italy called the new architecture Gothic, or barbarous. And, finally, with truth it may be asserted that there is nothing on earth which so resembles the majestic grandeur and form of the Gothic naves as those marvelous forest-ways where mighty trees, with their branches, arch the path high overhead.

§ **First Assemblies.** Christians at first held assemblies (ecclesiæ) in private houses, in the lower or upper rooms. Those of Jerusalem went often to the temple, and in the shade of its porches held public conversation; or, when they were at a distance from the Holy City, they entered the Jewish synagogue, and became public expositors, by invitation, of the law and the prophets. In the second and third centuries, Christians suffered great antagonism, from the Jews first, and afterward from the Romans. Still, they assembled in private houses when this was safe, or else in caves and catacombs. The great apologists were wont to say that Christians had neither "temples nor altars." Prior, then, to the time of Constantine, whatever Christian edifices might have existed were swept away in the fury of the persecutions.

§ **Ark and Basilica Types.** It was customary for Christians of the second and third centuries to speak of the church as the ark, and Christian symbolism by this figure represented the church. Truly, in those days, she sailed on troubled waters. So mightily was this figure of the ship impressed on Christian thought that in after times the body of the Christian church was called the nave, or ship. There is a remarkable relief (Fig. 39) which belongs to the first days after Constantine had made Christianity the religion of the empire. It is crude as sculpture, almost grotesque; however, it is a graphic presentation of a scene illustrating the triumph of the cross. In the right-hand corner is a Christian church in process of building. The nave is complete. On the sides are the shed-roofs over the aisles for the catechumens; the semi-circular apses around the senatorium and the matroneum for the imperial family and nobility. The gables of the building are surmounted with the Greek cross. The eastern end alone is incomplete. The presbyterium for the clergy is wanting. The chariot on the left, guided by the emperor, is bringing this new tribune, containing the ark-altar, symbol of the church. Two bishops are holding the sacred sign. The triumphal arch is seen before the tribune. The metropolitan bishop, holding the great cross, welcomes the royal comer. The scene is so amazing that the martyred dead rise from their graves to behold. The relief is truly remarkable. It makes clear, at least, that the basilica of Constantine was composed of the nave for believers; the side naves for catechumens; and the triumphal arch, within which were the tribunes for the royal family and nobles, and the tribune for the presbytery.

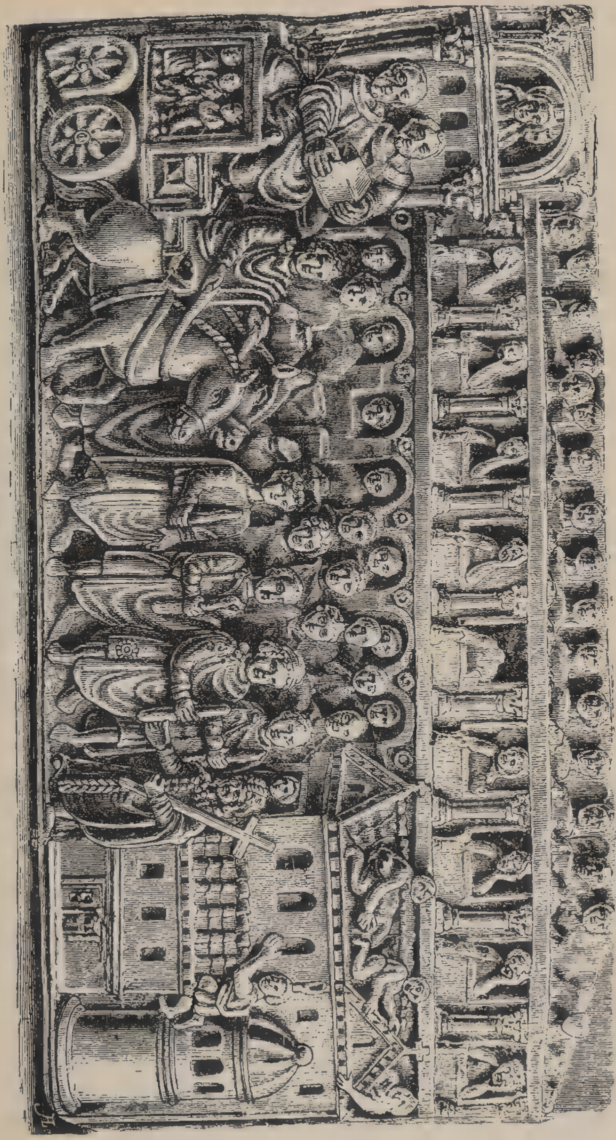
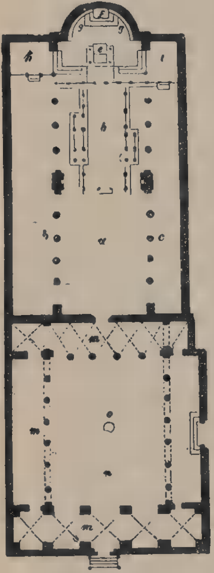


FIG. 39.

TRIUMPH OF THE CHURCH.

§ **Ground-plan of the Basilica.** The ark-church was an oblong building, containing a long room, which was called the nave, and a semi-circular termination, called the tribune. The basilica was simply the ark-church with side naves, having the eastern portion of the whole church cut off for the ecclesiastical and civil authorities. A typical example of the basilica is found in the Church of St. Clement at Rome (Fig. 40), which was built in 872, and when destroyed in the twelfth century, was rebuilt according to its original plans. Two rows of columns extend lengthwise of the building, dividing it into the middle nave (*a*) and the two side naves (*b*, *c*). At the extremities of each colonnade are strong pillars. And this basilica, in common with some others, has, midway in each row of columns, another and more massive pier. Extending from the center of the middle nave to the screen before the raised platform of the altar-tribune, was a choir (*d*) for the lower clergy, and this was surrounded by a marble barrier. A marble pulpit was built on each side of the choir, from one of which was read the Gospels, and from the other the Epistles. These pulpits were called ambones. The whole space, shut off by the screen, was the sanctuary. In front, under the triumphal arch (*f*), stood the altar; and behind it, in the apse, and arranged in a semi-circle, were the presbyters; hence it was called the presbyterium. In the midst of these the bishop sat in his cathedra. A space at the left of the sanctuary (*k*)

FGI. 40.

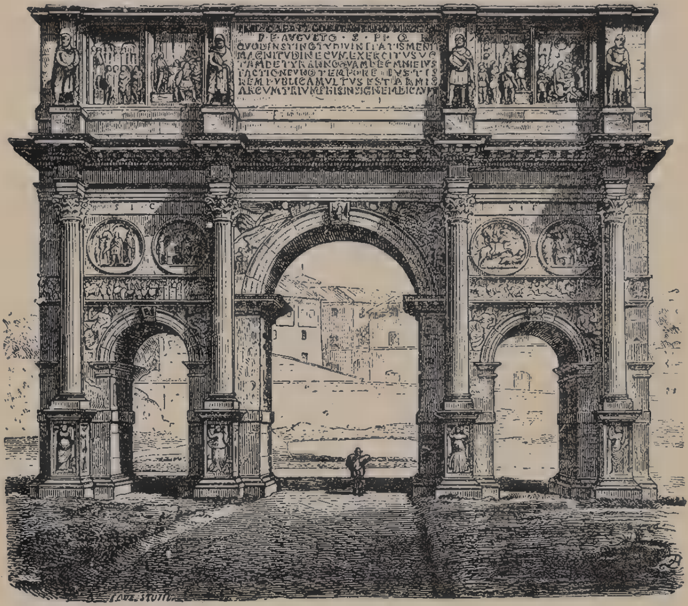


PLAN OF ST. CLEMENT, AT ROME.

was for men of high rank, and was named the senatorium; while a similar space (*l*) on the right was for women of rank, and was called matroneum. The left half of the nave was for men, and the right for women. The large hall before the nave (*n*) is the atrium, where penitents remained who had no right to enter the church. The cantharus stood central in the atrium, and here worshipers washed their hands before entering the church, in token of inner purification. The plan shows the usual arrangement for the disposition of the worshipers in the Constantine basilicas.

§ **The Triumphal Arch.** The appropriate architectural separation of nave and side naves and tribune, and the inclosure of this ground-plan with walls and roof, constituted the problem before the early Christians. Its answer at once gave to architecture a distinct type, to which there can be found no analogy in the edifices of Greece and Rome. Most fitting was it that the religion which overcame the strongholds of paganism by its beauty of creed and character and its enduring power, should develop, early in its career, an architecture in strongest contrast with the noble temples of the ancient religions, and yet which, when perfected, should excel all temple-structures ever erected by the genius of man for worship. The Senate and the Roman people dedicated an arch to Constantine, commemorating his victory over Maxentius, in 311 A. D. The arch was a far more imposing form than that of Titus; for, instead of one, it had three archways, a high central passage, and a lower one on each side. The ornamentation is mainly taken from the Arch of Trajan, which stood at the entrance to Trajan's Forum. This was the type for the triumphal arch which was placed in the early Christian basilicas. The triumphal arch, patterned after that of Constantine (Fig. 41), was placed over the altar; the authorities of the Church sat in the presbyterium behind the altar; the authorities of the State sat on each side of the altar within the arch. The sanctuary was the altar and presbyterium, and it was separated from the nave of the church by a screen. The side-naves were separated from the nave by rows of beautiful columns, carrying a splendid architrave, or a graceful series of arches, and terminated at the triumphal arch. They were separated from the senatorium and matroneum by the side archways of the triumphal arch.

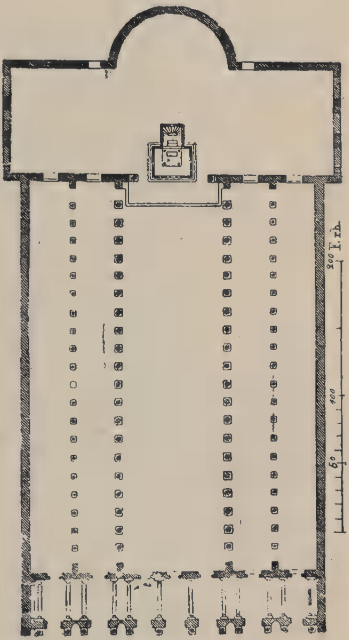
FIG. 41.


D·F·AVGVSTO · S · P · Q · R
QVOD INSTINCTV DIVINITATIS MENTIS
MAGNITVDINE CVM EXERCITV SVO
TAM DE TYRANNO QVAM DE OMNI EIVS
FACTIONE VNO TEMPORE IVSTIS
REMPVBLICAM VLTVS EST ARMIS
ARCVM TRIVMPHIS INSIGNEM DICAVIT
CAVE. STUTT.

ARCH OF CONSTANTINE.

§ **Elevation of the Basilica.** The ground-plan (Fig. 42) is that of a five-aisled basilica. The nave and the two double side-naves are separated by means of four colonnades. A triumphal arch of the Constantine type is placed over the altar, and at this arch the rows of columns terminate. Hence, standing within the colonnades, the eye sees at the sanctuary the front of a lofty, beautiful arch, while the arch over the side-nave is lower and not so imposing. Ampler accommodation for the increased number of catechumens in the cities, immediately after imperial favor was given to the Church, accounts for these double-aisled basilicas. The elevation of basilicas and their roofing were accomplished in the following way. There was placed upon the nave-columns either an architrave or a series of low arches. A wall was then built upon the colonnade to a considerable height. The upper part of the wall was perforated with windows. From the side-wall to the nave-wall, and so over the side-naves, a shed-roof was built, leaving the upper part of the nave-wall as a clerestory. Beams were placed upon these walls, and a gable-roof constructed above the nave. Thus an entirely new type

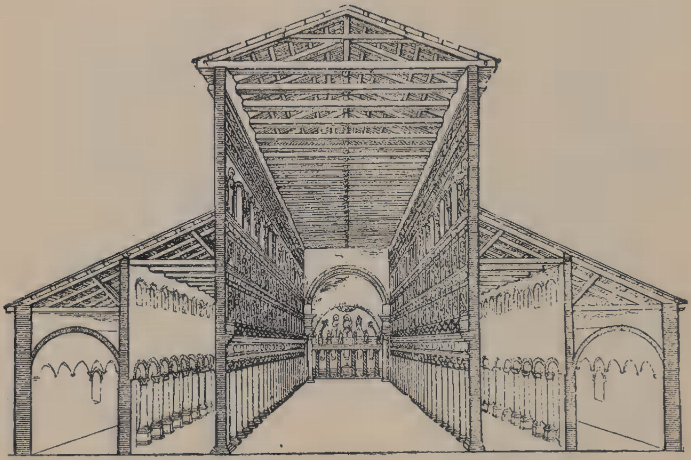
FIG. 42.



PLAN ST. PAUL'S BEYOND THE WALLS.

of building was created (Fig.43). It was also new to spring the arch directly from the capital of the column, not intervening, as in the Baths of Caracalla, a diminutive architrave for each column. This innovation had great import for the later styles of Christian architecture.

FIG. 43.



ELEVATION OF ST. PAUL'S BEYOND THE WALLS.

§ **Contrast of Exteriors.** Paganism and Christianity stood from the first in boldest opposition. They viewed differently the relation of God to man, of man to his fellow. They regarded character in man from a different standpoint. God, in the Christian view, co-operated with man to form character. Christians, when they began to build churches, emphasized this opposition. The ark-church, the earliest type, may be obtained if we remove from the Grecian temples (Fig. 44) the beautiful colonnades around them, leaving simply the unadorned walls and the gable-roof. Pierce these walls with windows, and there results the general form of the earliest

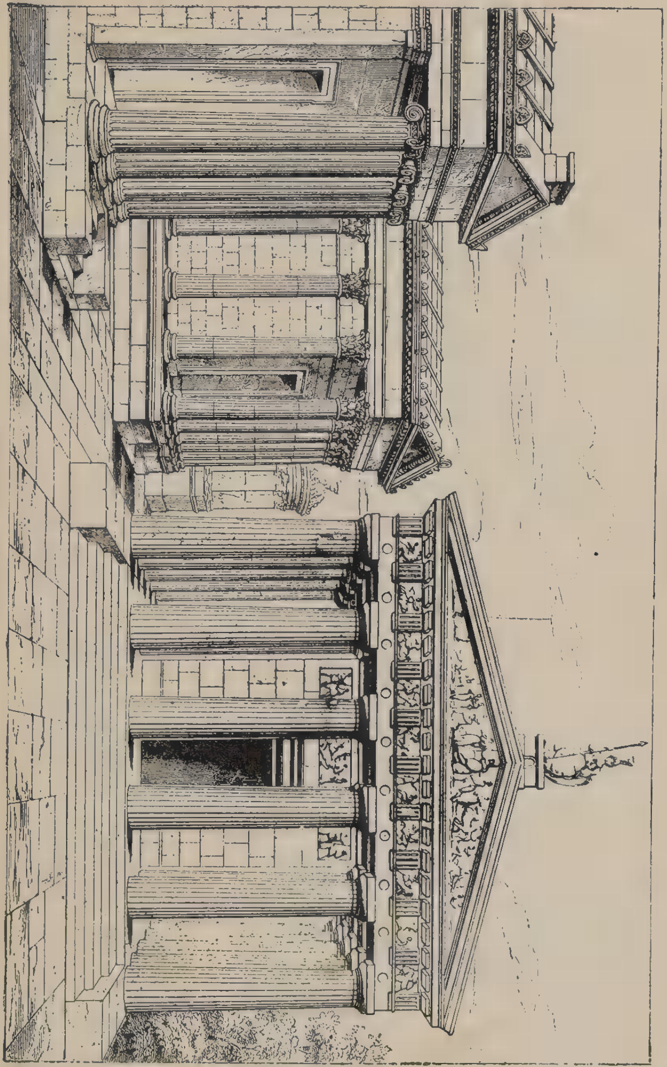


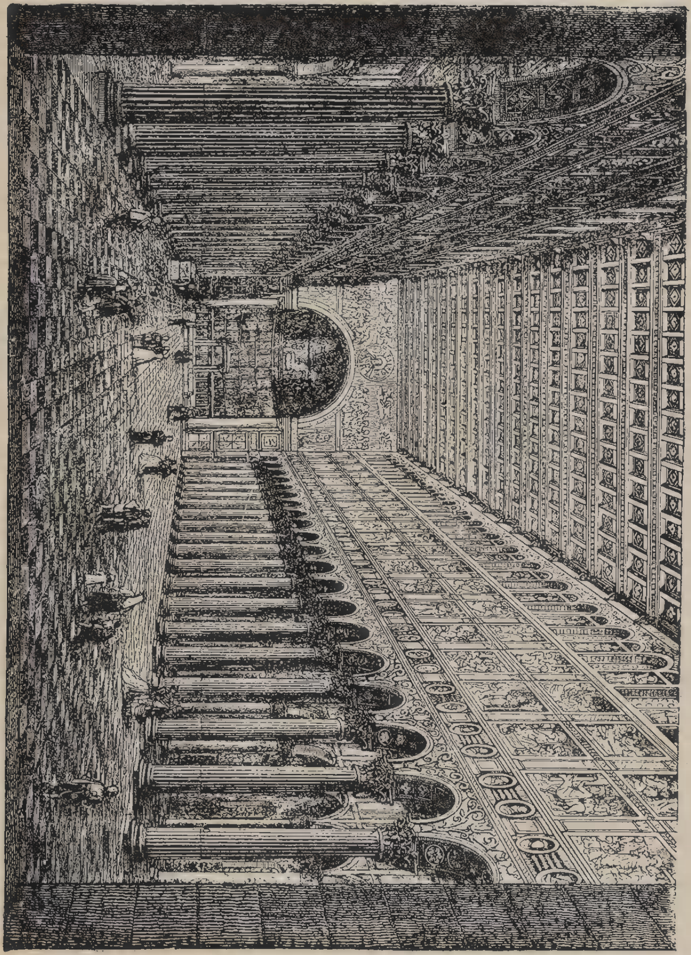
FIG. 44.

GRECIAN TEMPLES.

church. The basilica-type is obtained by interchanging the places of the walls and columns, making the colonnades beautify the interior; then by building on the architrave of the colonnade an attic-story, piercing its walls with windows, and placing above the gable-roof; afterward, by building from the side-walls, shed-roofs to this central structure. At first, and always, the Grecian temple was beautiful without; while, in the beginning, the Christian church was beautiful only within. The abode of the Grecian and Roman divinity was in darkness; hence his shrine was dark, and around it, but without, clustered the columned splendors. God, with the Christian, dwelt in the light; hence, windows let the day into his holy place, and Christians entered to commune with him. The interior of the church, therefore, was illuminated by all the beauty of art which the hand of man could fashion.

§ **The Nave Decoration.** Christian architecture of later times will show how this basilica, a new type among structures, received a development which creates amazement in every beholder, because of its marvelous variety and beauty. And indeed, from the first, the interior of the basilica was made most impressive through its royal splendors. Its nave was the highway of the Lord, leading to his sanctuary. In structure, the nave was an inclosed pathway, having columns on the sides, supporting walls upon which rested the ceiling-beams and the roof-rafters. The Greeks had used columns to support the entablature; the Romans to decorate their structures; the Christians used them to sustain the walls of the nave. They made either a colonnade, having columns and architrave, or an arcade, having columns and arches, upon which to build the nave-wall. The interior of the ancient basilica of St. Peter's (Fig. 45) will illus-

FIG. 45.

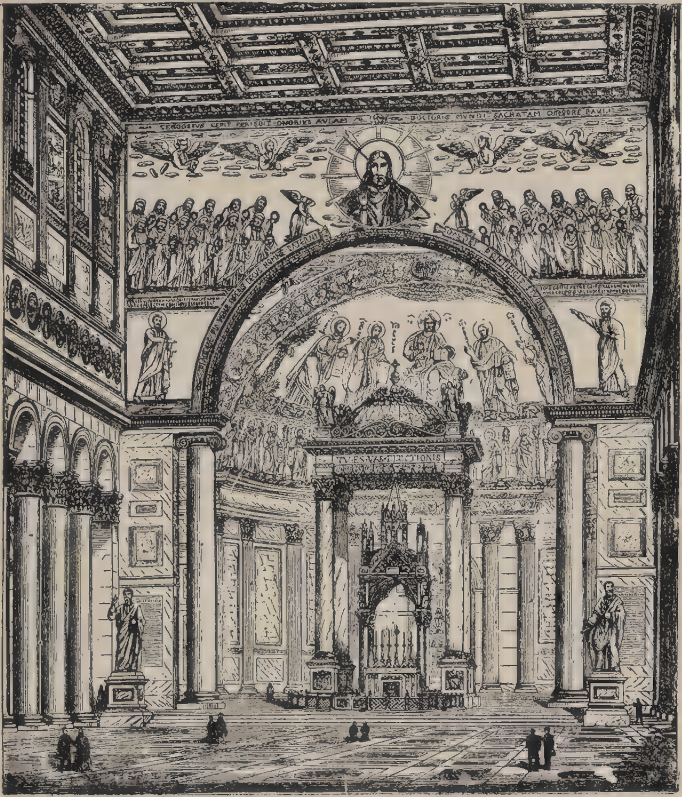


INTERIOR OF ANCIENT ST. PETER'S.

trate the mode of decoration; for, although fire destroyed the church in 1823, it has been restored according to the ancient plan, and beautified after the ancient manner. Beautiful Corinthian columns sustain the arches of the arcade. The archivolts are adorned with geometrical figures; the spandrels by vine-like forms. The wall, set upon these columns, had great import for the basilica. Its upper portion was pierced with windows having semicircular heads; and below these windows, the lighted, unbroken space of the wall allured the artist, who wrought his pictures there either with the colored cubes of a mosaic, or with brush and brilliant colors. The wall was paneled, each panel being marked off by beautiful half-columns, and within were represented Scripture scenes. The spaces between the windows of the clerestory, were filled with life-size representations of martyrs and saints. The ceiling above the middle nave is divided by decorated squares. All this imperial splendor of the nave faded not when brought into comparison with the glory of the colonnades belonging to Grecian and Roman temples. In the earliest basilicas sometimes a richly-sculptured architrave was borrowed permanently from some pagan temple, together with the supporting columns. In consequence, there were found in some early basilicas strange incongruities, such as columns and architrave of the most classical forms, adorned with Rome's lavishly-rich ornaments, and a wall above them figured by the rude attempts of Christian artists to portray Gospel narratives. Christian art was just unfolding itself. It then was in the bud; the full blossoming came in after centuries.

§ **Decoration of the Sanctuary.** The altar was beneath the triumphal-arch and above the crypt, wherein was a martyr's grave. There were three mighty thoughts connected with the sanctuary in the age of Constantine: here stood the altar-table, symbol of the faith; beneath

FIG. 46.



SANCTUARY OF ST. PAUL'S BEYOND THE WALLS.

it was the tomb of martyrs, witnesses unto death for the faith; around it, in the apse, were the clergy, living heralds of the faith,—therefore the splendor of the edifice shone most brilliantly at the sanctuary. The arch of the sanctuary in St. Paul's (Fig. 46), beyond the walls at Rome belongs to the fifth century. It is rich in mosaic decorations. Christ, receiving the adoration of the four and twenty elders, is represented above the crown of the arch, and above these the symbols of the Four Gospels. The Apostle Paul is seen below and on the left, while below and on the right is the Disciple Peter. The forms of disciples and apostles are wrought in brilliant mosaics upon the half-dome of the tribune. The background was blue or gold, and the figures were imposing in size, and clad in simple flowing drapery, all combining to produce in the worshiper and the observer a reverent awe for that religious faith which surrounded its Divine Author with the blue of the heavens, and its prophets and apostles with golden glory, such as the departing sun throws back upon the evening sky.

§ **The Crypt.** Until the eleventh century most basilicas had crypts under the altar of the sanctuary; for the place of a martyr's grave was the site, usually, of a basilica. A polygonal room was built about these sacred places, and a cross-vault was placed above. Over this room the sanctuary of the basilica was erected. Oftentimes a crypt was a subterranean church, where Christians gathered for solemn worship. When the memories of martyrs were fresh in the Christian mind, there was peculiar impressiveness in the services around the tomb of the martyr beneath the altar of a splendid basilica. The crypt, built beneath the altar, often raised the altar-level above the floor of the nave. A beautiful stairway in the nave then led up to the altar. The vaulting over the crypt was the first cross-vaulting used in the Christian church. It was later raised above-ground, and made to roof the aisles and nave.

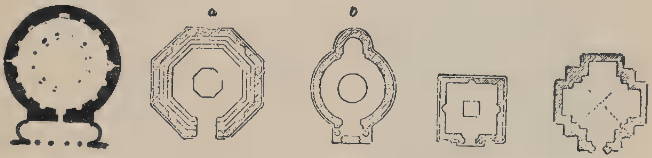
§ **Symbolism of the Catacombs.** The rich mural and apsidal decorations of the basilica, which began to be employed in the time of Constantine, naturally directs our attention to Christian symbolism. Little did the early Christians imagine that the rude signs graven in the catacombs were forerunners of the unrivaled beauty of Christian art. At first, a simple cross told the whole story; later a monogram was added, containing *Chi* (*X*) and *Rho* (‘*P*), the two first Greek letters in the name of Christ. This combined symbol gave fuller expression to the thought of the cross of Christ. The form of a fish was also sculptured on these graves—the shape had no significance; however, it represented the earlist Christian creed. The Grecian word for fish, *ichthus* ('ιχϑὺϛ), contained the symbols. The first letter *i* (ι), suggested Jesus; the second, *ch* (χ), Christ; the third, *th* (ϑ), God's; the fourth, *u* (ὺ), Son; the final letter, *s* (ϛ), Savior. This simple creed is, "Jesus Christ, God's Son, Savior." The olive-leaf was emblem of promise; the palm-leaf a victor's crown. Noah's history, connected with the dove, gave the olive-leaf symbol, which referred to the promise of the Holy Spirit; the entry of Christ into Jerusalem gave the palm-leaf symbol, and its meaning was, that they who followed him, for the truth's sake, to martyrdom, would wear on the brow the wreath of a conqueror.

§ **Symbolism of Basilicas.** When symbols became used as instructors of the congregation concerning the hopes and the fiery trials of the saints, they were placed by the artists upon the walls of the basilicas, even upon the dresses of women, and also upon the tombs of the rich. Then they became more picturesque. The dove, with the olive-leaf, represented the Holy Spirit; and the Savior was represented as a lamb, haloed with light and bearing a cross. Sometimes the Savior was symbolized by a lion's head, or by a vine whereon were branches laden with clusters of grapes. Simple reminders were all of these, respectively, of the crucifixion; of the inimitable parables of the Good Shepherd and of the True Vine; also, of the Lion of Judah, heralded by Messianic prophecy. And at this time, symbols became epitomized history, not alone of events but also of faiths and hopes. The Gospels were represented by the angel, the lion, the bull, and the eagle; the resurrection by the phœnix, and Christian watchfulness by the cock. Christian experience gave a rich development within the realm of symbols. The anchor was emblem of a Christian's hope; the lyre of his joy; his struggles were declared by the ark. Now single objects as these might adorn rings, or might become most suggestive when carved upon tombs; but the larger spaces of the basilica-walls demanded more imposing representations. Then, Old Testament histories were reduced to symbols. The Holy Spirit's help was symbolized by Noah in the ark, with outstretched hand to receive the olive-leaf; the trials of the Christian, by Daniel in the lion's-den, by the Hebrew children in the fiery furnace; the Divine assistance, by the passage of the Red Sea, by Moses smiting the rock, or receiving the tables of stone from the Almighty. Thus the tragic moments of Old Testament history became symbols of the faiths, hopes, and experiences of the Christian Church.

§ **Historic Painting.** A further advance was taken in Christian art when artists adorned the basilicas with scenes from the Gospel history. Thus the congregation read, through pictured-walls, the incidents of the marvelous life of Christ, and with these incidents were often connected the profound truths which the Master spake. Crude, indeed, were the efforts too often; but the subjects were of so great moment that, in after ages, they awoke all the powers of a painter's genius, and gave to us the masterpieces of Christian art.

§ **Baptisteries**. Christianity emerged from the persecutions clad with the whole armor of God. The lives of the followers of Christ in those dark days had won encomiums from the noblest of the Romans. When victory smiled upon this army, the fickle multitudes thronged to the churches for entrance; but the door was opened only after a probation, during which they were instructed in the gospel. At its close they were baptized; then they might enter the house of the King. Hence arose the custom of building small baptisteries near the cathedral-church. They were a distinct type of building from the basilica. The ground-plan was circular, or else one of the regular polygons. Such buildings Rome had reared in the Pantheon, and Greece in her Odeon and the Temple of the Winds. The baptistery, in its variations of plan, may be seen in Fig. 47. The baptismal-pool was placed in the center. Many of these structures had remarkable attractiveness. The baptistery of the Lateran at Rome still shows the ancient character of these buildings. The font is in the center of the octagonal structure, and is made of green basalt. Around it, forming an octagon, are eight large columns of porphyry, with an ancient architrave

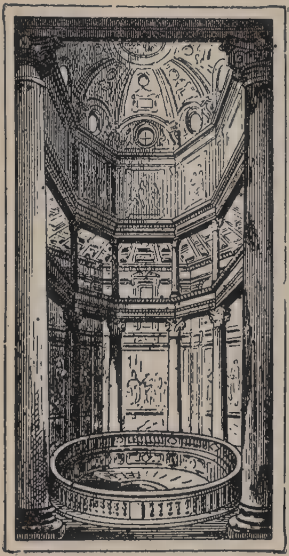
FIG. 47.



GROUND PLANS OF BAPTISTERIES.

of marble. It is said that Constantine presented these columns. This baptistery (Fig. 48) was long the only one in Rome and became the model for later ones. Sepulcher-chapels had the same general form as the baptisteries. In later times all these chapels fell into disuse. Baptism was performed in the church; and the church also, either in its crypt or else in its side-chapels, furnished sacred resting-places for the honored dead.

FIG. 48.

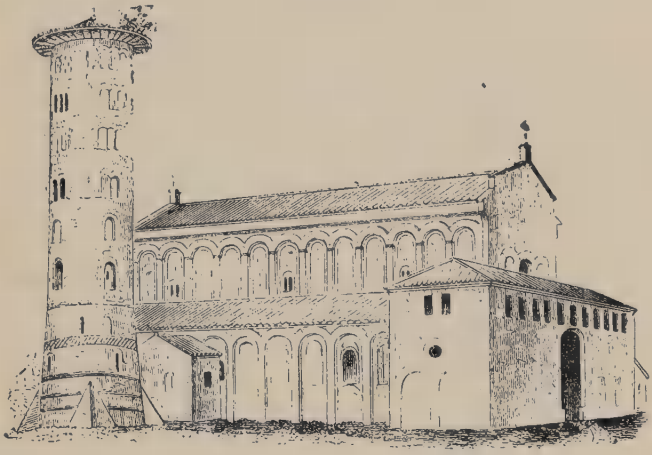


BAPTISTERY OF THE LATERAN.

§ **Other Basilica Types.** The Constantine basilica was displaced in the East by the Justinian basilica, but in the West it was perpetuated as the Latin basilica; and out of the Latin basilica, in the eleventh century and afterwards, there was developed the magnificent cathedrals of the Romanesque and Gothic periods. The Greek and the Latin types of basilicas differed especially through the essentially opposite modes employed for the roofing of the naves. The Latin basilica had a ceiling either horizontal or slanting, while the Greek basilica had a vaulted-ceiling. It is to be remembered that in the Roman Pantheon the vaulted-roof was employed; but the bewitching beauty of the interior of St. Sophia, with its domes and half-domes overhead, found in the mighty Pantheon only a distant kinship.

§ **St. Apollinare at Classe.** In 540 A. D., the exarch, who ruled the Greek States in Italy, had his residence at Ravenna. The political importance then of this city was only second to Rome. Classe was its harbor, and here we find an architecture, like that of Ravenna, with modifications of the basilica which had far-reaching consequences. St. Apollinare in Classe (Fig. 49) presents most of these changes. The porch before the west front, called the ardica, is a crude addition; but it was developed, in the later styles of Occidental architecture, into those beautiful entrances which adorn the western wall of many European cathedrals. Greater strength, as well as beauty, was secured for the walls supporting the roofs of the central and side naves, by giving them more thickness through arcade decoration upon the outside. The Cathedral of Pisa exhibits a most artistic expression of the employment of pilas-

FIG. 49.



ST. APOLLINARE, AT CLASSE.

ters for the division and strengthening of the external face of its walls, and the beautiful buttresses of Gothic architecture are but the wisest application of this suggestion, which the walls of the Church of St. Apollinare gave to architects. Further, the ardica, or porch, external to the front wall, was carried out to its perfection when, at Venice, the Cathedral of St. Mark obtained one of its chiefest splendors by the magnificent porch-arcades in front of its western entrance.

§ **The Campanile.** The round tower standing at the east end of St. Apollinare is of the utmost significance. Later times united it to the church, and gave to ecclesiastical architecture its beautiful strong towers, and the opportunity to build thereon its graceful spires, which threaten to touch the skies. There is much discussion about the earliest use of these towers, which are found near to the earliest basilicas. They were at first simply watch-towers, whence the watchmen looked for advancing foes who might threaten the city. Afterwards they became campaniles, where the bells were hung and the clocks were placed; and from their height over the city the hours of the day and night were told, or else the merry peals of the bells declared festive joys, and their solemn tones spake of calamities which had befallen the city and its homes. Mohammedans, who originated but little either in their Koran or in their civil code, and yet who elaborated marvelously foreign suggestions, were not slow to adopt this tower, and join it to their beautiful mosques as minarets, which in slender beauty rise above the city's dwellings, and whence the muezzin calls to the faithful the hours of prayer; but, at first, the minarets were watch-towers, where, three times every day and three times every night, the muezzin scanned the horizon in search of a possible enemy.

Table of the Oldest Christian Basilicas.

I. IN ROME.

NAME.	DATE.	CAUSE OF REVERENCE.	CHARACTERISTICS.
St. Peter's.	324–6	On Vatican Hill, over grave of St. Peter, martyred under Nero.	Nave and 2 double aisles; 380 feet long; architrave on the columns; high clerestory.
St. Helena.		Contains piece of Holy Cross.	Nave and 2 aisles, equal in height; square tribune.
St. Paul's beyond the Walls.	386	Over the grave of St. Paul.	Nave and 2 double aisles; columns from Hadrian's Mausoleum; arches, not architrave, on the columns.
St. John, Lateran.		Consecrated to the two Johns; long the chief church in Christendom.	Nave and 2 double aisles; arches on columns; very high nave.
Sta. Maria Maggiore.	352	One of the five Patriarchal churches.	Nave and 2 aisles; architrave on columns; height and breadth of nave equal; mosaics on wall.
Sta. Sabina.	425	On the site of an ancient temple.	Nave and 2 aisles; arch upon columns; Corinthian columns of Parian marble, and marble walls.
S. Pietro in Vincoli.	442	Receptacle for the chains of St. Peter.	Nave and 2 aisles, separated by 20 antique Doric columns, arches on columns.
Sta. Maria in Trastevere.	450	Site of a sacred fountain of oil.	Nave and 2 aisles; 22 columns of unequal size and ancient, having on them heathen deities.
S. Lorenzo fuori le Mura.	580	Over the grave of St. Lawrence.	Nave and 2 aisles; columns carrying a gallery, entrance at the east; block between capitals and arch, as in Byzantine style; patriarchal church.
S. Agnese fuori le Mura.	625	Over grave of St. Agnes.	Nave and 2 aisles; arches on 16 antique columns; above galleries, with small columns.
SS. Quattro Coronati.	650	Dedicated to four martyrs.	Nave and 2 aisles; Ionic and Corinthian columns, with architrave.

NAME.	DATE.	CAUSE OF REVERENCE.	CHARACTERISTICS.
S. Giorgio in Velabro.	682	Dedicated to St. George and St. Sebastian.	Nave and 2 aisles; 16 antique columns, with a pair of piers in middle of nave.
S. Crisogonc.	730	Dedicated to S. Crisogonus.	Nave and 2 aisles; old mosaics; pair of piers in nave.
S. Giovanni a Porta Latina.	790	Dedicated to St. John.	Contains now only 4 antique columns in portico and 10 in interior; nave and aisles, with 2 central piers.
S. Maria in Cosmedin.	790	Site of Temple of Fortune.	Ancient columns built in its walls; 20 ancient columns bear up the nave; a beautiful campanile connected with it, and crypt.
S. Vincenzo alle Tre Fontane.	772	Site of the Three Fountains, according to legend.	A transitional edifice; aisles vaulted; transept and choir beyond; pilasters on outer wall, between windows; pillars, not columns.
S. Nereo ed Achilleo	800	Site of Temple of Isis	Aisles vaulted as crypts.
S. Prassede.	820	Dedicated to S. Praxedis.	Aisles vaulted as crypts; 4 arches over nave, like apse-arch.
S. Maria in Dominica.	827		18 beautiful columns of granite; aisles vaulted as crypts; broad nave; 3 tribunes.
S. Martino a Monti.	844	Site adjacent to Baths of Trajan.	24 antique columns; crypt 18 steps higher than nave; aisles vaulted as crypt
S. Clement.	872	Dedicated to S. Clement	Atrium still standing; also ancient arrangement of tribune and choir.
S. Nicholo in Carcere.	900	Dedicated to St. Nicholas.	Ancient columns from three temples in external walls; foundations of these temples visible.
St. Maria in Dominica.	817		Exceedingly wide nave; narrow aisles; 3 tribunes; mosaics of 9th century.

II. AT RAVENNA.

S, Giovanni Evangelista.	425	Dedicated to St. John the Evangelist.	An ardica in place of atrium: Byzantine cubical blocks between capital and arch.
S. Agatha.	425		Ditto.
S. Pietro.	425		Ditto.

III. IN OSTRO-GOTHIC KINGDOM.—493-526.

NAME.	DATE.	CAUSE OF REVERENCE.	CHARACTERISTICS.
S. Theodora.			
S. Apollinare.	549		With flower-formed capitals, and cubical blocks above; no gallery; beautiful mosaics.

IV. ELSEWHERE IN THE WEST.

NAME.	DATE.	CAUSE OF REVERENCE.	CHARACTERISTICS.
Cathedral of St. Parenza in Istrieus.	542		3 tribunes; mosaics of precious stones and pearls; windows of transparent marble; bishop's seat and benches for the priests.
Cathedral of Triest.	450		
S. Fredeau, at Lucca.	625		
St. Michele, at Lucca.	650		
Church of the Apostles, at Florence.	825		
First Cathedral of Cologne.	814		2 choirs; each choir with 3 windows, and vaulted crypt below.
Cloister Church of St. Gathen.	820		Each aisle with tribune, and a passage around it; choir raised, crypt below; altar before steps of choir; with towers.

V. IN THE ORIENT.

NAME.	DATE.	CAUSE OF REVERENCE.	CHARACTERISTICS.
Basilica of Tyre.	320		Nave and 2 aisles; with atrium.
Basilica on Calvary, Jerusalem	323	Site of Crucifixion.	Nave and 2 aisles; perhaps with galleries.
Basilica at Bethlehem.		Site of the Nativity.	Nave and 2 double aisles.

N. B.—1. The walls of the nave were upon architrave or arches.

2. The ceiling of nave and aisles at first flat; but later, the aisles were vaulted.

3. The aisles in the ninth century had apses, like the nave, to terminate them.

4. The apses of the aisles were pushed more and more back toward the nave-apse in late basilicas.

Chapter III.

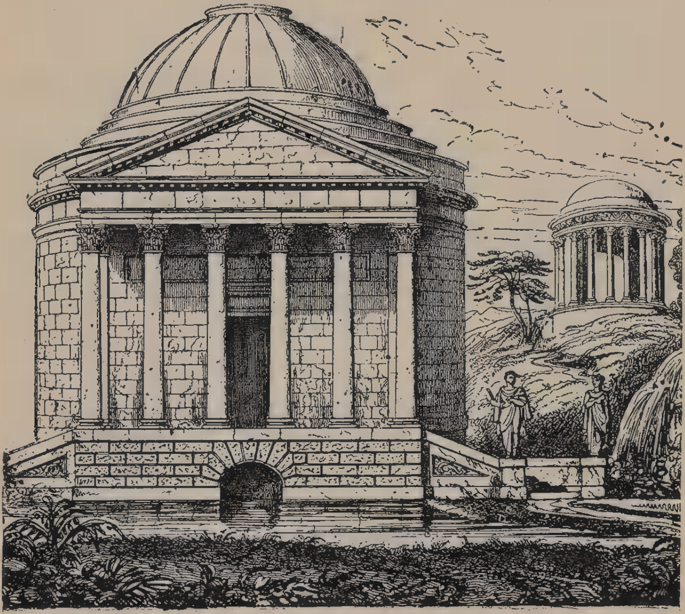
BYZANTINE STYLE.

§ **The New Architectural Type.** Constantinople, built upon the site of the ancient Byzantium, was made the capital of the Roman Empire. This city on the Bosphorus was new Rome, and it was Christian; ancient and pagan Rome had passed away as the seat of imperial power. Constantine beautified his new city with noble Christian churches, called basilicas. But in the sixth century, under the Emperor Justinian, there was erected 565- a new type of church. This new form, essentially unchanged, continued to be the type for the edifices of the Greek Church during the nine subsequent centuries. The style was named Byzantine. The incursions of the Moslems resulted in the subjugation of province after province of the Eastern Empire to the followers of the false prophet. Therefore, in the eighth century and afterwards, the might of the Greek Church waned in the East; and, as a result, the promise in its new style of architecture was never fulfilled. However, the noblest mosques of Mohammedanism owe their chiefest attractions to the Byzantine style.

§ **One Type with Varieties.** Progress is marked, not by gradual evolution, but by great leaps within the sphere of human endeavor. Afterward the thousand prophetic voices may be distinguished which impelled man forward in this advance. It was in the first half of the sixth century that two edifices were raised, one of which practically determined the character of Byzantine architecture: the other outlined the paths along which Romanesque and Gothic architecture went in their magnificent development. These two buildings were the Church of St. Sophia, at Constantinople, and the Church of St. Vitale, at Ravenna. It is to be kept in mind that both churches were inspired in their structure by that antithetic spirit which the Greek Church cherished against the Latin. The Church of St. Vitale was an æsthetic novelty, although breathing highest genius in all of its parts. On the contrary, the Church of St. Sophia enshrined within its form the cross and the crown, two great symbols which Christians had already employed for centuries. St. Sophia, the architectural marvel of Justinian was, therefore, a magnificent departure from that type of Christian edifice wherein the grand triumphal arch determined its form. Henceforth, for the Eastern church, St. Sophia was the model.

§ **Domical Forms.** It is, therefore, of highest importance to distinguish the animating spirit in these two revolutionizing structures. The controlling thought in both is the central dome. Yet not the dome as a roof, but the dome of great magnitude as a roof, was the marvel of these edifices. The Byzantine style owes to Rome the suggestion that a great dome might be set high in the air; owes also to her the knowledge that arcades might be used for ornamentation. The domes in these Christian churches were free domes of most imposing proportions. This knowledge of the free dome was also a gift of Rome. Viewed from the interior, both St. Vitale and St. Sophia presented great domes, raised high in the air, and so made equal appeal with the Pantheon to the feeling of the marvelous; but here ends the resemblance. Rome had built domical structures such as the unique Pantheon and many small domical temples in imitation of Greece (Fig. 50). These small temples with domes resting on columns, among the Grecian and Roman edifices, called forth admiration by their faultless symmetry and beauty, but they made no appeal to the feeling of wonder in the observer, for their domes were small. The daring might of the Christian spirit set domes of great magnitude on arches supported by piers; and love of the beautiful led him to use arcades to adorn the spaces between these massive piers, and thus gain a new grace for the interior of Christian churches, scarcely dreamed of even by the luxurious Romans.

FIG. 50.

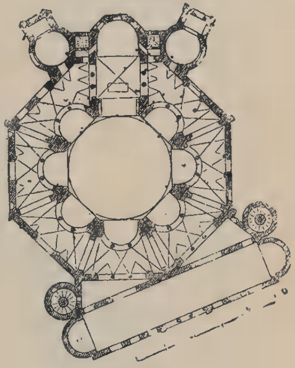


ROMAN DOMICAL TEMPLES.

A. TYPICAL EXAMPLES.

§ **St. Vitale.** Every suggestion of the Constantine basilica is banished from this new type. There is within no triumphal arch. The ground-plan (Fig. 51) is an octagon, having before the portals a porch, called the Ardica. The tribune has a semicircular termination within, and on each side of the altar are the places for the nobles and their wives. Entrances to the senatorium and matroneum are on each side of the apse. The nave was circular and surrounded by seven semi-circles, the eighth being supplied by the presbyterium. Between these semicircles and the sides of the octagon were the side-naves for the catechumens. Thus it is seen that all the parts of the church are the same as in the Constantine basilica; but the form and the whole aspect of the church were completely changed. If there be any symbolic idea in this new type at Ravenna, it is to be found in the dome, a beautiful crown above the worshiping congregation.

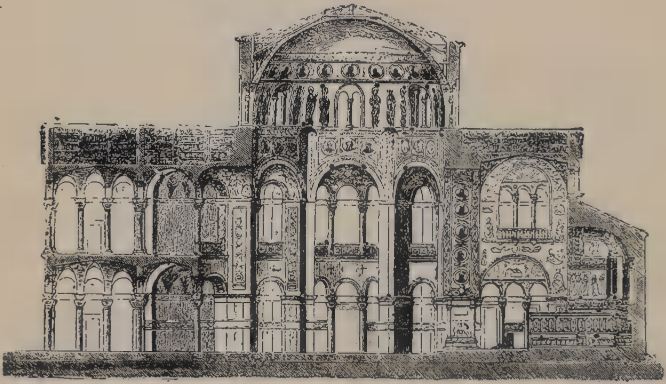
FIG. 51.



GROUND-PLAN OF ST. VITALE.

§ **Its Elevation.** The great triumph of Byzantine architects was achieved when they set the dome on high piers by means of intervening arches. They then discovered those principles of structure which have guided Christian architects in after ages; for the Romanesque and the Gothic church, in their perfected development, simply adopted the Byzantine construction. There are, in St. Vitale (Fig. 51), eight strong piers, narrower at the face than at the back, placed equidistant around a circle. They are raised to almost the height of the roof, and low arches are set upon them. A dome is built upon these arches (Fig. 52); and exterior to this dome, just as was done in the temple of Nocera (*vide* Fig. 28,) a hollow cylinder was built to assist in counterpoising the dome's thrust. This circle, surrounded by piers and roofed by the dome, is the nave of the church. A bay of the nave is the part between two piers. The construction of a bay is important to notice, for it gives additional buttressing to the dome. A semicircle is drawn between each two piers, and on its circumference two columns are placed, from whose summits arches are sprung. Then two columns are placed above these arches, a kind of second story, and a half-dome is built upon them, abutting upon the dome The effect of these nave-bays was new and beautiful. They only needed to be placed along the sides of a rectangle instead of a circle, in order to give the nave-bays of the later styles.

FIG. 52.

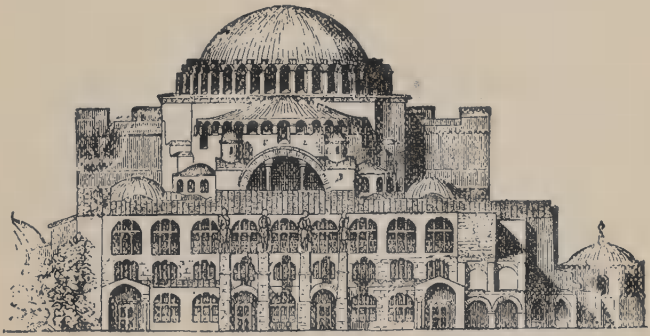


LONGITUDINAL SECTION OF ST. VITALE.

Inclosing this central structure of the Church of St. Vitale there was built an octagonal wall, with cross-vaulting to the center, thus adding to the stability of the dome. The side-nave was between this wall and the circular nave. The presbyterium was a part of the side-nave with an added apse. It had bays, similar to those in the nave. Along its sides were the senatorium and the matroneum. The porch was arched to correspond to the arches within. There was great beauty and grace in the interior of this new type of edifice; yea, more, there was here the prototype of those wonderful naves and choirs which form the culminating splendor of the great Romanesque and Gothic cathedrals.

§ **St. Sophia**. The exterior of this church (Fig. 53) is primarily only a buttress for the central structure.

FIG. 53.



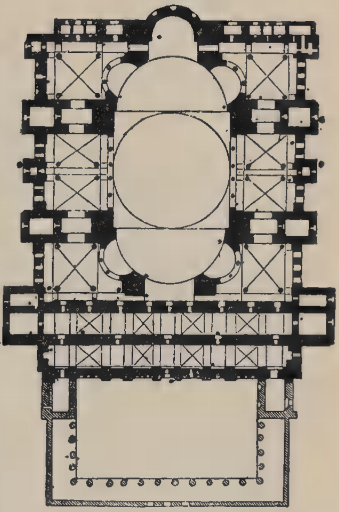
EXTERIOR VIEW OF ST. SOPHIA.

Yet one is greatly impressed by the magnitude of the porch in front, together with the large half-circular window, the half-dome and the magnificent central dome, seen above the porch. The massive buttresses at the sides, rising to great height, indicate how safely poised the dome is, although at an astonishing height. But we must stand beneath the vast and beautiful dome of St. Sophia if we would interpret the indwelling thought which the architect embodies in this church. There the structure whispers first its great secret. The church in plan is a Greek cross, and above the crossing is poised the dome, a most beautiful crown. These are the symbols which the Byzantine basilicas enshrine within their form. These supersede hereafter the triumphal arch in the Greek church.

§ **Dome of St. Sophia.** The architect of the small temple at Nocera placed a free dome on a circular colonnade of twin columns; the architect of St. Vitale built his dome after the same manner as that at Nocera, but supported it by arches which rested upon lofty piers, eight in number, arranging them at the angles of a regular octagon. The architects of St. Sophia chose the dome of the Pantheon as their pattern; but instead of engaging it to the walls as was done in the Pantheon, they made it free, and set it on four great and high piers by means of four arches and four magnificent pendentives. The mode of support was, therefore, essentially the same as in St. Vitale; but it was at the angles of a square, not of an octagon, where the great dome-piers were located. The dome of the Pantheon rose one hundred and forty feet high, but that of St. Sophia has an altitude of one hundred and eighty feet. The Roman dome was upheld by a circular wall of most massive masonry; the Byzantine dome was sustained by mighty arches. It was no small problem of mechanics to make stable this high structure resting on four arches. Yet it was so masterfully solved that the earthquakes and storms of fifteen centuries have not hurled the dome to the ground.

§ **Its Ground-plan.** The type, as shown in St. Sophia (Fig. 54), provided for the same religious requirements as did the Constantine basilica. It had, therefore, a forecourt or atrium, a porch, a great nave and side-naves, a senatorium and matroneum, and the presbyterium. Galleries increased the capacity of the church for the accommodation of catechumens. But the edifice was antithetical in all else, in structure as well as in ornamentation, to those basilicas which Constantine built. The dome above the nave determined the structural principles of the edifice; the inclosed Greek cross was an after-thought, giving, however, to the Byzantine church a new and remarkable symbolic character.

FIG. 54.

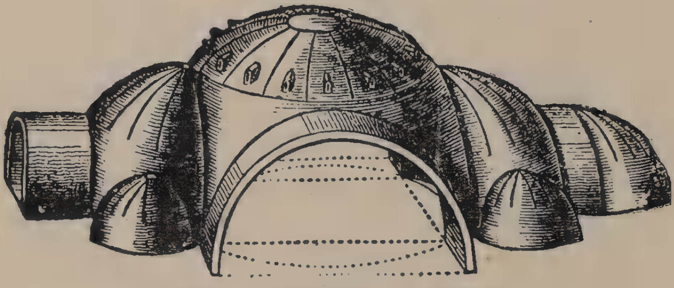


GROUND-PLAN OF ST. SOPHIA.

§ **Its Elevation.** Four piers of colossal size (Fig. 54) were erected at the corners of a square; four mighty arches were sprung from these piers over the sides of the square. Pendentives were then built exterior and between these arches, making a kind of concave wedge. These pendentives were built in courses of masonry, and at the height of the crown of the arches they made a circle. This structure was built to support the dome above the nave. Buttressing piers, four in number, were placed on the north and south sides, opposite the nave-piers, with a passage-way between them, and cylinder vaults were built upon these piers, opening north and south. The buttressing of the dome on the eastern and western sides was accomplished in the following manner: A pair of smaller piers were built on the west of the central structure at a distance from the nave-piers equal to half the diameter of the dome, and a similar pair on the east. Half-domes, of the same diameter as the central dome, were placed upon these smaller piers and the larger piers of the nave, and these half-domes abutted upon the transverse arches of the central dome. The walls of the porch and those of the tribune gave further buttressing to the dome on the west and the east. The filling in of walls between the buttresses on the north and south sides, together with the vaultings above the side-naves and galleries, all made a compact building, whose parts mutually united to sustain the mighty central dome.

§ **The Domical System.** So new and remarkable is the roofing of the Byzantine basilica that a view of its domical system (Fig. 55) will be studied with interest. The central dome, with the pendentives and the great cylinder vault on the south, are easily distinguished. On

FIG. 55.

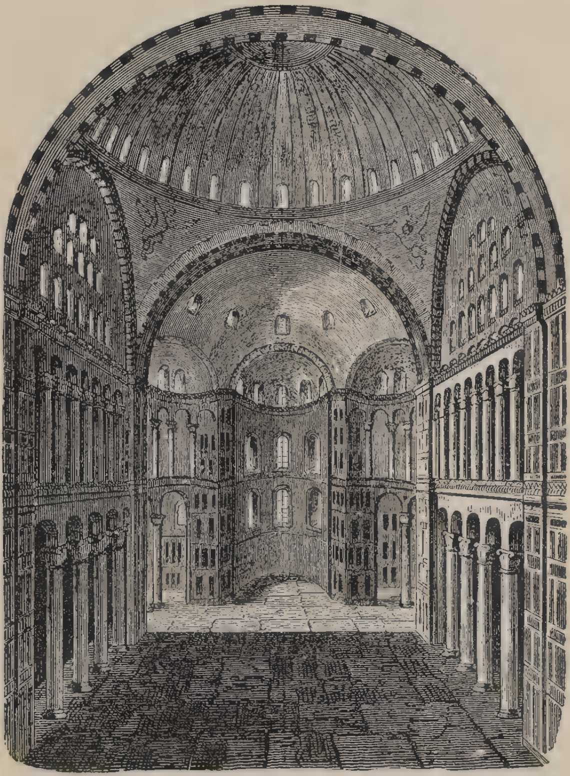


DOMICAL SYSTEM OF ST. SOPHIA.

the right are the half-domes over the presbyterium; on the left the half-dome above the addition to the nave, and also the tunnel-vault over the entrance to the church.

§ **Interior View.** We see the mighty frame-work of the church (Fig. 56), the piers, arches, pendentives, and dome of the nave, also the piers and half-domes of the presbyterium. The structure of the

FIG. 56.



INTERIOR VIEW OF ST. SOPHIA.

building is strong, secure, massive; and the arches, pendentives, and domes present graceful and pleasing forms to the eye. What remained was to beautify the church and make manifest the rich symbolism within. Four beautiful columns are placed between the piers of the dome on the north and south side, and five graceful round arches are set upon these columns. Above them an arcade of seven arches is builded. These columns were of various colored marbles, and most precious. Their capitals were of new designs, and the floor and the surface of the piers were inlaid with precious stones. The head of each side-arch was pierced with windows, and mosaics adorned the wall-spaces around them. Exterior to the great arches, answering to the spandrels in an arcade, the pendentives were built, the new device of Byzantine art, and symbolic representations on a brighter background than below beautified these pendentives. The face of the dome was a background of gold, and the circle of windows at its base seemed, when the sunlight shone through, like sparkling diamonds set in the effulgence of gold. Truly, the dome is a crown. The light, as it entered the church, wrought marvelous effects. The arms of the cross toward the entrance and toward the apse, as the rays of the sun streamed in, shone in silvery splendor, and the north and south arms also became dazzlingly bright. Their junction at the center was in shade. Yet above this place, where shadow touched the cross, was the golden glory of the crown. Justinian, standing within this shadow, beheld the superb effects wrought by his beautiful Church of St. Sophia. Then he recalled Jerusalem and the wonderful temple which Solomon built on Mount Moriah, so marvelous in its beauty that for centuries the memories of its glory awoke in the Hebrew poets and prophets lamentations that its splendor had all departed. And the emperor, under the noble enthusiasm which his own work enkindled within him, spake from his heart, and said: "I have vanquished thee, O King Solomon!"

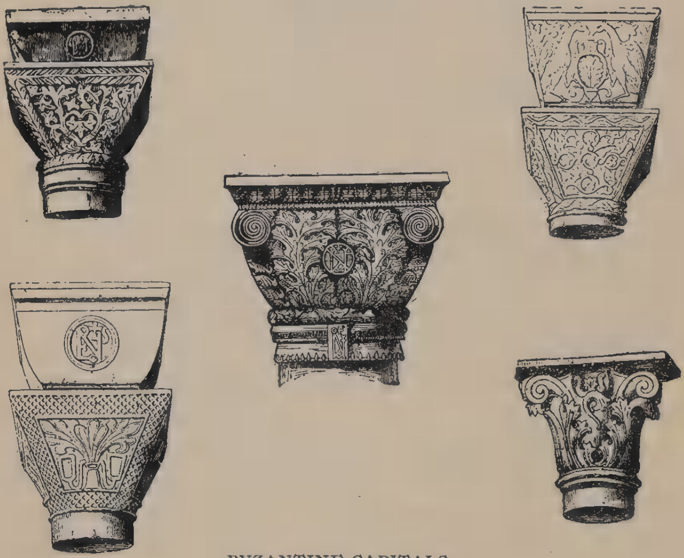
B. BYZANTINE CHARACTERISTICS.

§ **Structural Peculiarities.** The Byzantine basilica was a vaulted structure, in which the weight and thrusts were concentrated upon well-buttressed piers. The whole building culminates in a dome of great magnitude, which is made to rest upon two transverse and two longitudinal arches of the same diameter. The height of the supporting piers and the great strength of these arches immediately command attention. Standing under the dome, one sees the presbyterium and the extension of the nave, when looking east and west, and the side-naves when looking north and south. There is, therefore, the impression given that the building is cruciform, the arms of the cross being equal.

§ **Interior Arcade-system.** The great space between the north and south archways of the dome was filled in by a two-storied arcade, which reached as high as the summit of the piers. The crown of the arch was built in as a solid wall and perforated with many window-openings. There are also two-storied arcades between the greater and the lesser piers; these arcades are semicircular. The whole interior of the church receives great attractiveness through these arcades. The upper ones made, also, galleries for the church.

§ **Decorative Features.** The piers and the walls were incrusted with marbles of various colors. The marble slabs were set in a frame of ornamental mouldings, making a beautifully paneled surface. The arcades were richly carved. Intricate leaf and scroll-patterns enriched the archivolts and spandrels, while the cornices above the arcade were inlaid work of different marbles, and were also beautifully carved. The appearance was that of lace-work wrought out in stone. The columns are noteworthy. Shaft was the gift of temples in Asia, Egypt, and Rome. The capitals of the Byzantine style indicate rupture from the Greek and Roman models. And, where classical influence is most seen, there is, nevertheless, independent treatment. One form (Fig. 57), in which volute and acanthus-leaf are present, seems Corinthian; but the acanthus-leaves are turned away from the volutes, and made to encircle a monogram of the Christ. The Ionic capital may seem to be imitated in another form; but under the volutes a curious foliage is sculptured around the capital. A new

FIG. 57.



BYZANTINE CAPITALS.

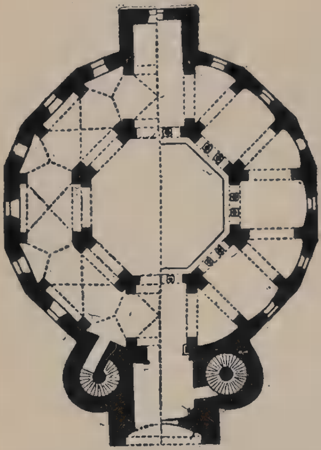
form is seen among the group, where an inverted pyramid is made the capital, and a cube, with the sides chamfered off, is set thereon to give support to the arch's foot. The cube has on it a symbolic monogram. A fourth form presents a variation in its sculpturing: the capital is sculptured below into acanthus-leaves; but, on the sides of the impost cubical block, bird-forms appear. Call all these capitals, if you please, vulgar, the extravagance of an untrained fancy; it is better, being alive with serious thought, than the most perfect servile imitation of classical forms. The domes, half-domes, and pendentives were adorned with mosaics. The background was gold, and in some cases a blue, like that of the sky; and the artist, with little cubes of many colors, portrayed the forms of apostle and saint, the stories of Christ and of the prophets, and, by means of symbols and allegories, the great Christian doctrines and virtues. There was royal splendor in the Byzantine basilicas, a splendor in strongest contrast with the enrichment of pagan temples, and manifesting to every eye the beautiful symbols of a triumphant religious faith.

C. VARIETIES IN THE BYZANTINE STYLE.

§ **Germano-Byzantine Style.** The promise in the new style of architecture which was given in the two churches of St. Vitale and St. Sophia, never reached fulfillment; for the rise of the Moslem power was a constant and fearful menace to the Empire of the East for centuries. Oriental Christianity then struggled for existence. The Western Empire, during this period, was overthrown by the Goths; but Charlemagne reestablished it as leader and emperor of the Germanic tribes, and built his favorite capital at Aix la Chapelle. It was here that he built his court-chapel, which introduced the principles of the Byzantine style in Western

Crowned
Xmas da
800. A.D.

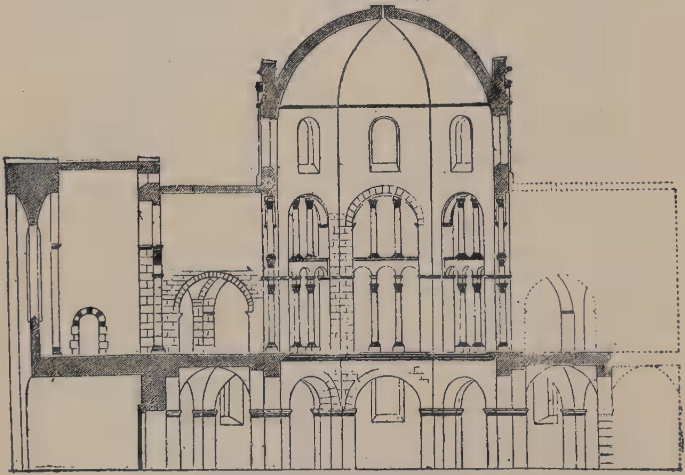
FIG. 58.



GROUND-PLAN OF CHARLEMAGNE'S CHAPEL.

Europe. The church (Fig. 58) resembles St. Vitale, at Ravenna. The central structure is built upon eight piers set at the angles of an octagon. These support the dome. Exterior to this central part is a polygonal wall, inclosing the aisles and buttressing also the center. The church is a double church: below was the place of sepulture for the imperial family; above was the place for public worship. The cylindrical vault and its modification roofed the lower church; the upper church was vaulted with the dome and cross-vaults. The longitudinal section (Fig. 59) will

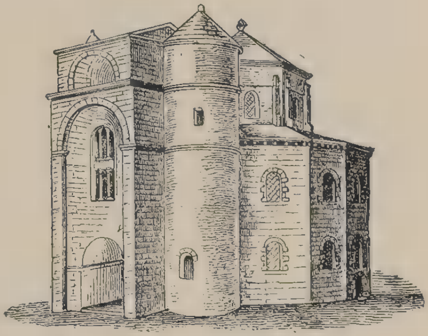
FIG. 59.



LONGITUDINAL SECTION.

show the construction of the building. The vaultings, the double arcade in the upper church, the dome-construction, were Byzantine and most important objects of study for those architects who created, in later times, the Romanesque and Gothic styles. The exterior of this royal chapel (Fig. 60) was also very instructive. The massive structure before the church, an entrance-way, and flanked by towers, was a crude suggestion of the porches and towers of the later Western styles in Christian architecture. The correspondence between the exterior walls of the nave-aisles and of the dome is noteworthy. It is true that the porch, with its towers, harmonizes but poorly with the grace of the polygonal church. Yet the two distinct structures were great object-lessons to architects. The West seized upon the porch and developed it into the magnificent western façades of its cathedrals. But when the Crusaders built their temple on Mount Moriah, they took simply the polygonal structure, and built what is now known as the Mosque of Omar, "the second most beautiful edifice in the world." The Byzantine style, however, has not its richest development in Christian architecture; for when Constantinople fell, in 1453, the fairest of Byzantine Christian churches became a Turkish mosque, and, under its suggestions, the victorious Moslems developed the mosque-architecture, which often-

FIG. 60.

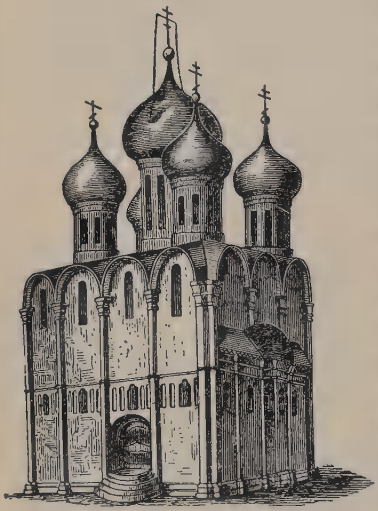


EXTERIOR VIEW OF COURT-CHAPEL.

times seems so fragile that one is tempted to regard their mosques as erected for the sport of the winds. Yet they stand, century after century, giving witness to the stability of structures built according to the principles of Byzantine architecture.

§ **Russo-Byzantine Style.** Vladimir the Great (981–1015) witnessed a general acceptance of Christianity in Russia during his reign, and he ordered the erection of Christian churches in his realm. Constantinople was the chief source whence came Christian instruction, and this grand Slavonic nation in its infancy received gifts of civilization and religion from the Queen of the Bosphorus. Mongols, from Asia, invaded Russia, and established a supremacy there, which continued two centuries. Ivan III built anew the Russian Empire in the latter half of the 15th century. The religion of the new empire, as that of Vladimir's kingdom, was the Greek Church. Ivan III built churches with Italian architects, modeling them after the Cathedral of Vladimir, the oldest metropolitan church in Russia. The Church of the Assumption, at Moscow (Fig. 61), presents the Russo-Byzantine type. The edifice is in the Byzantine style; for there is a central dome, built upon piers with arches, and but-

FIG. 61.

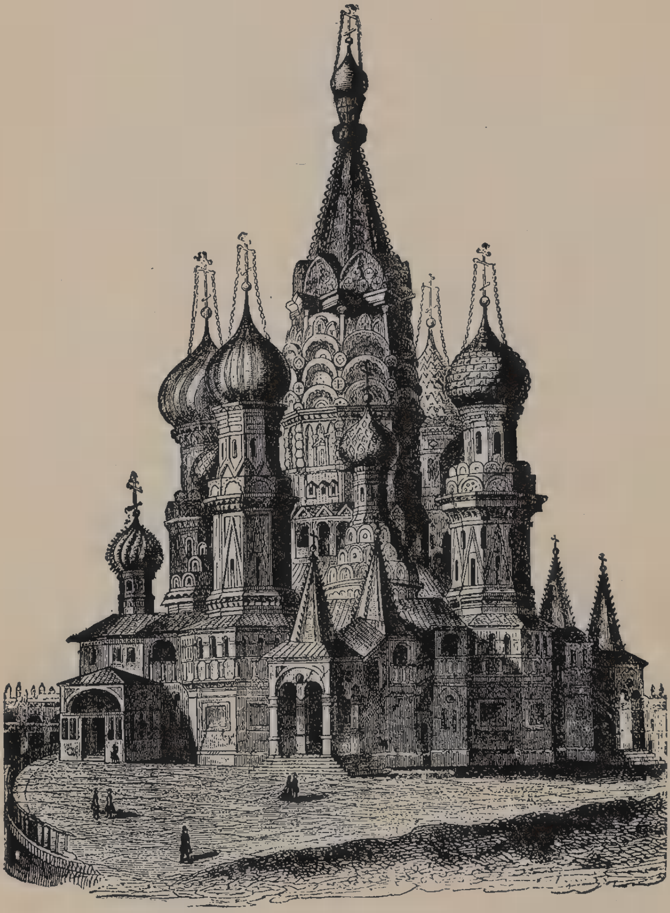


CHURCH OF THE ASSUMPTION, MOSCOW.

tressed by the exterior walls. But the dome is bulb-shaped and raised above the roof by means of a slender cylindrical tower. Similar, but smaller domes were placed at the four corners of the edifice. All this parade of domes upon the roof is Russian, and perhaps of Tartar origin. The interior of these churches is very plain, having the screen, which is called the iconastasis, figured with painted pictures of saints in a conventional manner, and made splendid by the glitter of silver and gold. Elsewhere the interior of the church is most unattractive. The barbaric love of splendor is shown without. Bulb-shaped domes of green or blue are broken into by stars and surmounted by crosses of gilt; roofs are painted yellow, or red, or white, and make a fantastic blending of color, such as the American Indians love on their head-dresses and mantles. A more perfect acquaintance with Christian architecture has taught the Russians how incongruous such an array of inharmonious forms and colors is with a refined taste, and it occasions no surprise to learn that an imperial edict has gone forth in this our century, ordering that Russian churches hereafter should conform to the old Byzantine style, to the style of St. Sophia. We trust the next edict of Russia will be to go to Constantinople, and own the marvelous St. Sophia and its surrounding city. The hand of the architect had, in the Russo-Byzantine style, full freedom only in the decoration of the roof. Here he often makes a hodge-podge of all forms: Octagonal towers, one above the other, topped with bulb-domes; pyramidal towers, topped off, also, with bulb-domes; the round arch and arcade within an arch; pilaster-colonnades around the sides,—all are found here. Indeed, every form of ornament known seems to be massed on this exterior, and every effect sought which may be attained by means of gilt and paint in the primary colors. The Cathedral of

Vassili Blanskenoy, at Moscow (Fig. 62), is the climax of this grotesqueness in the Russo-Byzantine style. It is truly a barbaric pile, a splendid religious monstrosity among Christian churches.

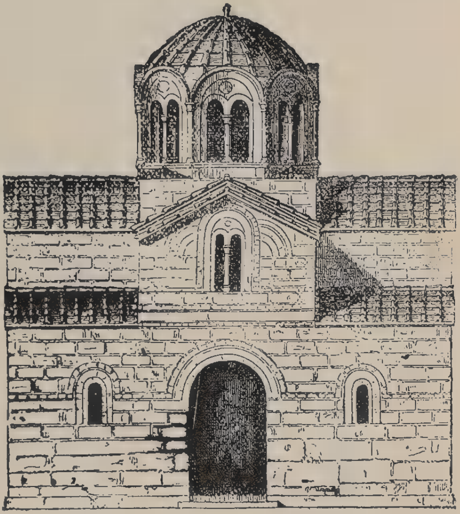
FIG. 62.



CATHEDRAL OF VASSILI BLANSKENOY, MOSCOW.

§ **Greco-Byzantine Style.** The influence of Constantinople declined constantly as the power of the Moslems increased. In consequence, many provinces, like Georgia and Armenia, assumed more independent relations in matters of State and Church. However, the Greek Church was the form of Christianity among them, and, in later centuries, when Europe increased in power and the Sultan became weaker, a Byzantine style arose in these countries and in these times which retained the Greek cross as the form of the church proper, and the dome above the crossing, both essential features of the Byzantine style, but adopted the mode of roofing which was characteristic of the Constantine basilica, that is, the gable-roof. The Church of St. Taxiarchus, at Cynthus (Fig. 63), is an example of this modification of the Byzantine style. The ground-plan is a square, as seen from without; but the interior is a Greek cross with the dome above the crossing. The nave is covered by a gable-roof and the side-naves by lower shed-roofs. There is a transept-roof over the transept-arm of the cross, equal in height to the nave. The principal entrance is at the transept on

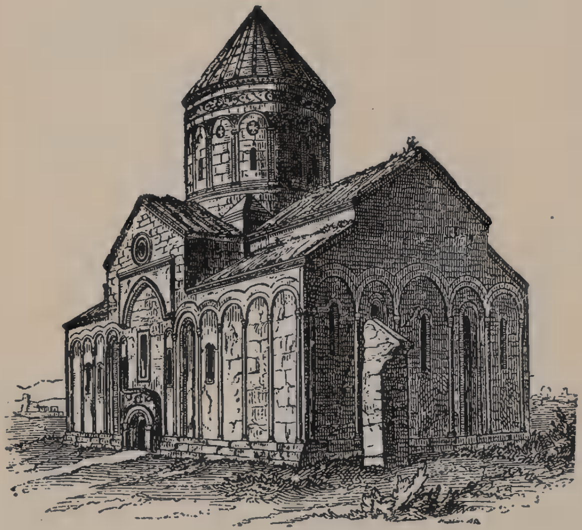
Fig. 63.



CHURCH OF ST. TAXIARCHUS.

the south. A more graceful and beautiful example of this style is found in the Cathedral of Ani (Fig. 64), in Armenia. The proportions of the church are those of the Constantine basilica, having greater length than breadth. The beautiful dome above the crossing, raised upon a cylindrical tambour, adds new grace to the exterior. The transepts are midway in the building, and their gable-roofs have the same elevation as that of the nave. The walls are paneled with arcades. The doorway, arched and recessed, stands at the south transept. The style of the church is Greco-Byzantine, but the proportions and wall-decorations are similar to that employed in the Church of St. Apollinare, at Classe (*vide* Fig. 49). There were some churches of this style built by the Greeks and Armenians during the tenth

FIG. 64.

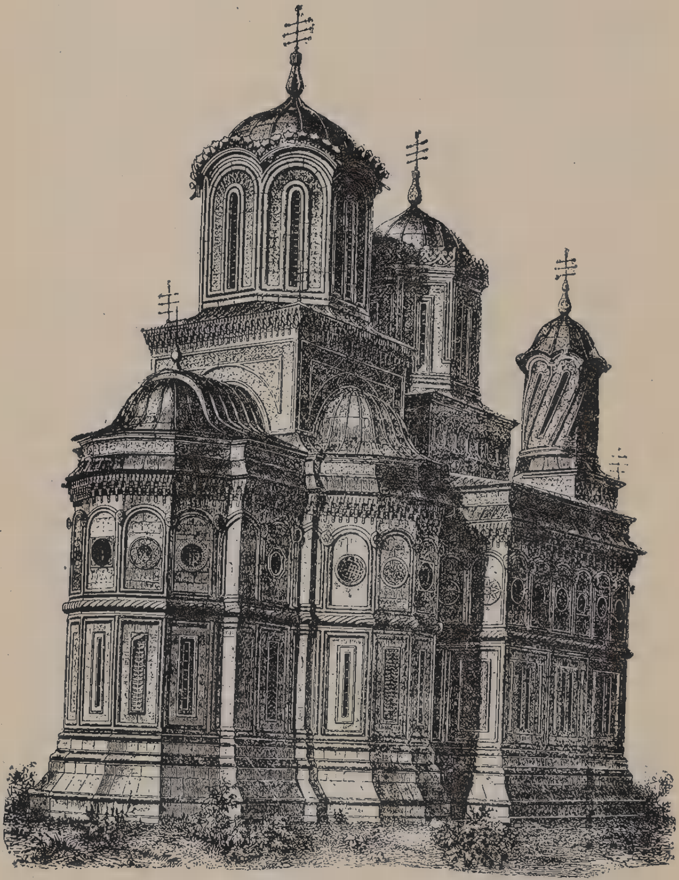


CATHEDRAL OF ANI.

and the following centuries. They excelled, architecturally, the Byzantine type, in that the exterior had greater grace and beauty of form, and gave to the eye an outward cruciform appearance, thus giving expression, within and without, to the great symbol of the Christian Church. The influence of the Turk in those countries where this Greco-Byzantine style had origin, made the conditions for the fullest development of this style most unfavorable. But the few edifices which are extant show that the combination of the Basilican and Byzantine styles produced churches which, externally at least, surpassed either style in attractiveness.

§**Roumano-Byzantine Style.** The Roumanians claim descent from the Romans, and they speak a language closely allied to the Latin. They were subject to the Sultan, at Constantinople, when he gained power in Europe, and so were brought under the influence of Byzantine art, more especially as it was developed in connection with mosque-architecture. However, in religion the Roumanians were Latin Catholics. The history of the struggle of this people to throw off the Sultan's yoke is a pathway of tragedy and patriotism. The first period of comparative prosperity, after repeated disasters, was in the early part of the 16th century. The towns and villages were even then built of "wood and wattle and daub;" but its ruler at this time introduced architecture, building churches and monasteries. He adorned the ancient Mount Athos with Christian churches. The allegiance of the Wallachian Church at this time was transferred to Constantinople. The church-architecture of this period, as it was represented in Wallachia, united features which were common to both the Romanesque and Byzantine churches, and in this union there is evidenced the earlier adherence to the Pope of Rome, and the later transference of the Wallachian Church to the patriarch of Constantinople. The Cathedral of Argish, in Wallachia (Fig. 65), will

FIG. 65.



CATHEDRAL AT ARGISH.

illustrate this new variety. The transept is midway of the church, and above the crossing is a dome, which reminds one of the domes of Byzantine churches. The choir has a similar dome above it, polygonal apses are on each side of the choir, except the side toward the nave. The nave, extending toward the west, and of the same breadth as the choir, makes the church cruciform. There are two turrets at the western façade, smaller, but of similar type, to the domes above the crossing and the choir. The exterior walls are paneled in the lower story with rectangular figures, and in the second story with beautiful arcades. The windows below are rectangular, narrow, and high; but they are circular above. The church is singularly beautiful, unlike, in its general appearance, to the churches of the Occident or the Orient. It stands as a witness to the attractiveness of churches which combine harmoniously the Eastern and Western styles; for this cathedral, in form and elevation, is Byzantine; but the charm of the choir, the beauty of the exterior, the graceful disposition of the domes and turrets, make one think of the Romanesque church.

Table of Byzantine Churches.

I. IN CONSTANTINOPLE.

NAME.	DATE.	PRESENT USE.	CHARACTERISTICS.
St. Sergius.	520	A mosque.	Nave, a circle; great dome above; semicircular recess between arms of the cross; exterior form, a square. The original model of St. Sophia.
St. Sophia.	532	A mosque.	Nave, a square with semicircles on the east and west sides having diameter equal to side of the square; great dome above the crossing; semicircles between the arms of the cross. Greatest of Byzantine churches.
St. George.		A Christian church.	
Church of the Savior.		A mosque.	Surpassing in purity of style the churches of Ravenna with beautiful mosaics of 14th century.
Pantocrator.	cir. 950	A mosque.	A triple church.
Pamma-caristou.	cir. 950	A mosque.	One dome still with beautiful mosaics.
II. IN SALONICA.			
St. Sophia.	cir. 800	A mosque.	Transepts cross at the middle of nave; dome with rich mosaics, covering 600 square yards of space.
St. George.		A mosque.	Circular in plan; dome 80 feet in diameter; the dome has 800 square yards of ancient mosaics, the largest work in ancient mosaics extant.
III. IN RAVENNA.			
SS. Nazario e Celso.	450	Roman Catholic chapel.	A chapel of sepulture; in plan a Greek cross with transept-arm shorter; a central dome, and four abutting semi-domes.
St. Vitale.	530		Circular in form, with a central dome and abutting half-domes; ancient mosaics only in choir.

IV. IN RUSSIA.

NAME.	DATE.	PRESENT USE.	CHARACTERISTICS.
Cathedral at Kief.		Greek church.	Like St. Sophia, of Constantinople, according to some.
St. Michael, at Kief.		Monastery.	The original church had 15 golden cupolas, and was called the Golden Heads.
Church of the Assumption, Moscow.		Greek church.	Five domes; beautifully and fantastically decorated; great treasures in the church.
Cathedral of Vassili Blanskenoy, Moscow.		Greek church.	Many cupolas and spires; a mass of ornament and paint; monument to a bizarre taste.

V. ELSEWHERE.

NAME.	DATE.	PRESENT USE.	CHARACTERISTICS.
Church of St. Taxiarchus, Cynthus.		Greek church.	Plan is a square; gable-transept and nave of equal height; cupola at crossing; side-naves with shed-roofs.
Cathedral at Ani.		Greek church.	Plan is a rectangle, with greater length than breadth; the crossing, central; roofing of nave and transepts of equal height; dome above crossing.

N. B.—1. The Byzantine church is a square or octagon, usually showing within the Greek cross.

2. The Russo-Byzantine churches are distinguished by domes and gilt and color.

3. Other varieties exhibit the adoption of features of the Basilican Style.

Chapter IV.

ROMANESQUE STYLE.

§ **The Greek Church.** When the first ten centuries of the Christian era closed, the Greek Church, or the Church of the East, had developed an architecture of its own, which has received the name of the Byzantine Style. But the invading Moslem arrested the spread of the Greek Church; indeed, took from the Christians their own edifices in Syria and in Egypt, and destroyed them or converted them into mosques. The emperors of Constantinople could not conquer the followers of Mohammed; could not, therefore, deliver the Christians of Syria and Africa from their dominion; but the imperial city itself withstood the attacks of the Moslems until the middle of the fifteenth century. Then Constantinople fell.

§ **The Latin Church.** When the city of Constantine was made, in the fourth century, a Patriarchate, and ranked equal to Rome, and was named second in the enumeration of the patriarchs, the Bishop of Rome made strong protest against the degrading of the patriarchs of Antioch, Alexandria, and Cæsarea, claiming that preeminence among the Churches was grounded, not on imperial favor, but on apostolic authority. From this time the Christianity of the West and that of the East began to diverge on lines that ultimately effected complete separation. The Church of the West, while it was a protesting patriarchal Church before the Papacy was fully developed, is the Latin Church. Its architecture was, in the main, like that of the Constantine basilica. The splendor of some of these Latin basilicas rivaled the magnificence of St. Sophia. These churches of the West may be called either Constantine or Latin basilicas.

§ **The Papal Church.** The Church of the West was established among the Germanic people at the commencement of the eleventh century, and became the Church of the Papacy. Rome was its center. The Patriarchate of Rome was the oldest, and pointed to traditions which united it with the labors of the disciples and apostles of Christ. Rome held, according to tradition, the graves of St. Peter and St. Paul. Great Christian basilicas marked the sites of their tombs. The Latin Church had sent forth the heralds of Christianity into the far Occident and converted the German barbarians. Centuries of struggle passed before the influential Churches of Germany and France yielded submission to Rome. But when Hildebrand determined the policy of the Church of Rome, Latin Christianity in Western Europe became Papal, and was united in one vast ecclesiastical organization. The Roman pontiff was its spiritual head. This system was the Germanic Church. The Romanesque style is the first style of architecture which was developed within the borders of the Germanic Church, and it continued during the time included between 1000–1250 A. D. This architecture is not to be regarded as a modification of the Latin basilica; it is as essentially different from the Latin basilican style as the Germanic Pontifical Church is different from the Latin Patriarchal Church. Since it was developed among rival States, which became distinct nationalities, the Romanesque architecture abounds in beautiful variations, expressive of the creative genius among the nations of the West.

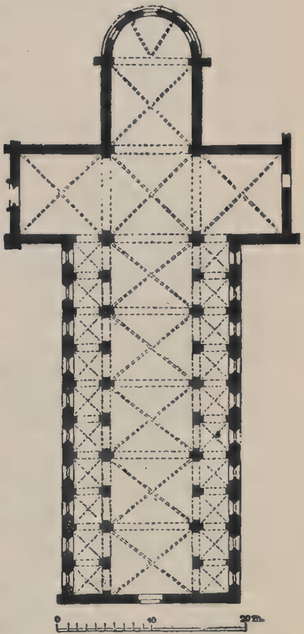
A. THE CONSTRUCTION OF THE ROMANESQUE CHURCH.

§ **Cruciform Plan.** The Latin cross determines the Romanesque architecture just as absolutely as the Greek cross determines Byzantine architecture. The Latin or Constantine basilica was not cruciform. Manifest advantage will be gained if we consider the type in its greatest simplicity. Yet the plan in its simplicity did not at first appear. Cathedrals and abbey-churches were built embodying the typical form, which combined, also, many accessories necessary for worship in cathedral cities and abbey-communities; these, however, fell off in those churches where fewer demands were made upon the edifices because of a simpler ceremonial service. The ground-plan of the Romanesque church may be regarded as that of a Latin basilica, changed so as to conform to the Romanesque style. The general rule of proportion between the nave and the aisles in the Latin basilicas was to make the aisle equal to half the width ot the nave. This ratio was retained in the Romanesque church. But the change, which transformed this ground-plan into that of the Romanesque, was to place on the north and south sides of the eastern terminal square ot the Latin nave, a similar square (Fig. 66), and also such a square between this eastern square and the tribune. In this way the ground-plan of the Romanesque style is obtained, and it is seen to be cruciform.

§ **Distinction of Parts.** This new addition to the parts of the church called for other names. The square, whose four sides were bounded by squares, was named the crossing. The square to the east, together with the tribune, was called the apse, and these make the choir. The two squares, one on the north side and the other on the south side of the crossing, make the transepts.

The nave is that part of the church to the west of the crossing. The side-aisles are simply side-walks, across which light comes into the nave from the windows of the outer walls. It is only at the crossing that the formative principle of the building is apparent. Standing here, the inshrined cross is seen, bathed in light from the choir and the transepts and the nave-window in the western façade. It is to be observed that the Romanesque church separates, by the crossing and transepts, the whole worshiping congregation from the sanctuary, while the Constantine basilica (Fig. 40) places the nobility and their families on each side of the altar. In the Byzantine church (Fig. 54) the nave was central, within the arms of the cross; but in the Romanesque church the nave is the body of the church west of the transepts, which make the arms of the cross.

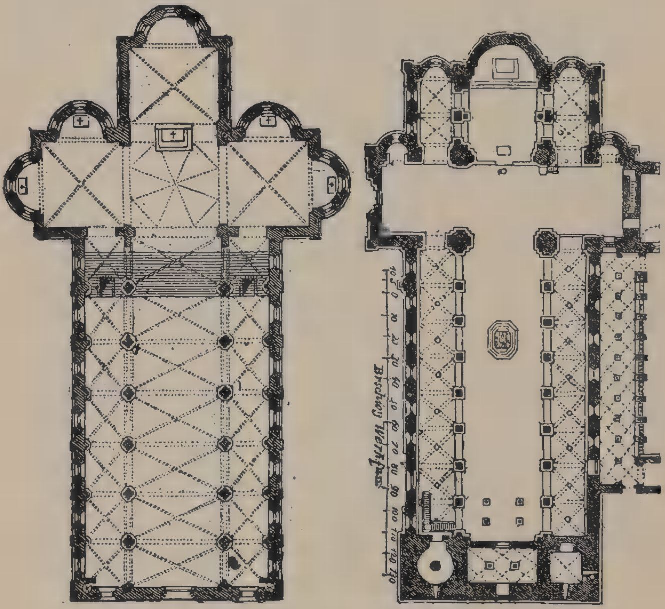
Fig. 66.



CHURCH AT DOBRILUGK.

§ **Rectangular Choir.** Varieties of this cruciform type occur through the shape and surroundings of the choir. The variety just considered is distinguished by a rectangular choir, having a semicircular apse at its extremity. Modifications in this variety were effected by adding to the transepts one or several apses (Fig. 67, *a*). The high altar was in the front of the choir. Other altars were placed in the apses of the transepts. These changes are abiding witnesses to a more complex worship, where, not God alone, but saints were invoked. A very important modification, producing a new variety. is to be noticed in Fig. 67, *b*. The aisles pass across the transepts, and are continued along the length of the choir. Access to the crypt from the side of the choir, perhaps, led to this change at first. Apses for altars were placed at the extremities of these extended aisles, and apses were also placed in the transepts. It was not uncommon to have the choir raised above the nave of the church (Fig. 67, *a*), because of the vaulted crypt beneath. A glance at these plans clearly shows that the whole edifice is but the environment for the central cross,

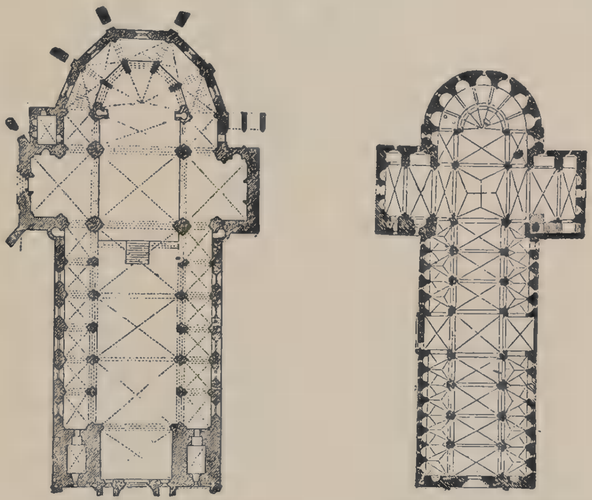
FIG. 67.



(*a*) CATHEDRAL AT PARMA. (*b*) ABBEY CHURCH, KONIGSLUTTER.

§ **Polygonal and Circular Choirs.** A striking variety had this remarkable modification: Instead of the side-aisles terminating along the side of the choir, they were continued until they met (Fig. 68), and in this manner a choir-aisle was formed. The general rule was to make the exterior of the choir circular (Fig. 68, *b*); but there are occasional instances where both choir and the exterior wall are polygonal (Fig. 68, *a*). These varieties of the Romanesque style which have choir-aisles afford several great advantages. There is a more perfect correspondence of the exterior with the interior. The nave and choir, which are the places for the laity and the clergy, are brought into greater harmony, so far, at least, that both are surrounded by aisles. There were secured, architecturally, great gains in this variety. Open arcades made the interior view of the choir similar

FIG. 68.

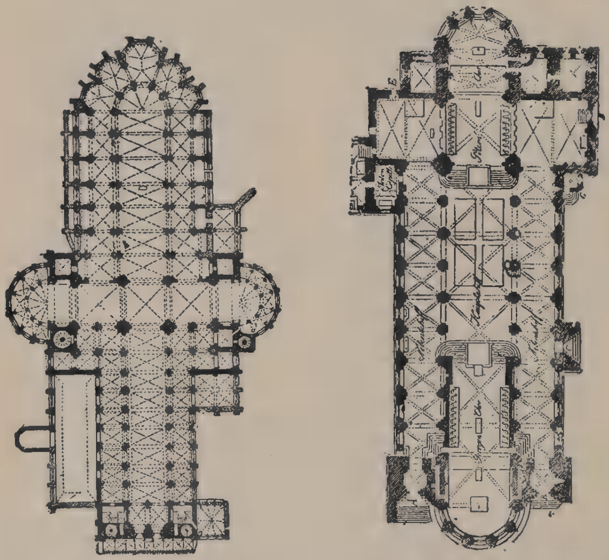


(*a*) MINSTER AT BASLE. (*b*) ABBEY AT HEISTERBACH.

to that of the nave, and through their arched openings the worshipers looked and saw the wondrous forms and colors in the windows of the eastern wall, and it seemed as if another world, beautiful and mysterious, surrounded the church. Chapels were arranged around the choir-aisle, and a walk about the choir was associated with the worship of those saints whom the Church had canonized, or with the grateful remembrance of those benefactors whose gifts enabled the builders to construct the beautiful edifice.

§ **Sporadic Forms.** The ground-plans, which we have considered, show clearly the Latin cross within.

FIG. 69.

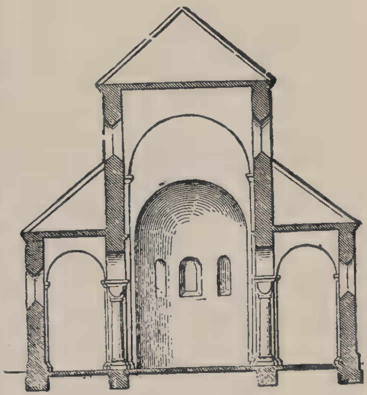


(*a*) CATHEDRAL AT TOURNAY. (*b*) CATHEDRAL AT BOMBERG.

They also exhibit the modifications about and around the choir. There were, however, two departures which should be considered before entering upon the study of the elevation of the Romanesque church. Fig. 69, *a*, shows where the transepts were moved to the middle of the church. This modification was sporadic, in imitation of Byzantine basilicas, and had little general favor. The church with the double choir is seen in Fig. 69, *b*. Yet the church type is retained, the western choir in no ways obscuring the cruciform plan; for the nave of the church terminates toward the west at the steps of the western choir, and makes, with the transepts and the eastern choir, the Latin cross.

§ **Elevation of the Romanesque Church.** The elevation of the church and its roofing was accomplished in the following manner: Lofty pier-columns (Fig. 70) were set at intervals along the nave and connected with arches; pier-columns were erected along the choir and transepts and given the height of the nave-piers. Walls, one-half the height of the nave, were built parallel to the nave-piers, leaving aisles; and often similar walls were built about the choir. The elevation of the church, so far as the structural principles are involved, is complete when a ceiling is built over the nave, choir, transepts, and aisles, and when a gable-roof covers the nave, transepts, and choir, and shed-roofs cover all the aisles. The ceiling beneath this roofing might be either flat, cylindrical, or vaulted.

FIG. 70.



TRANSVERSE SECTION.

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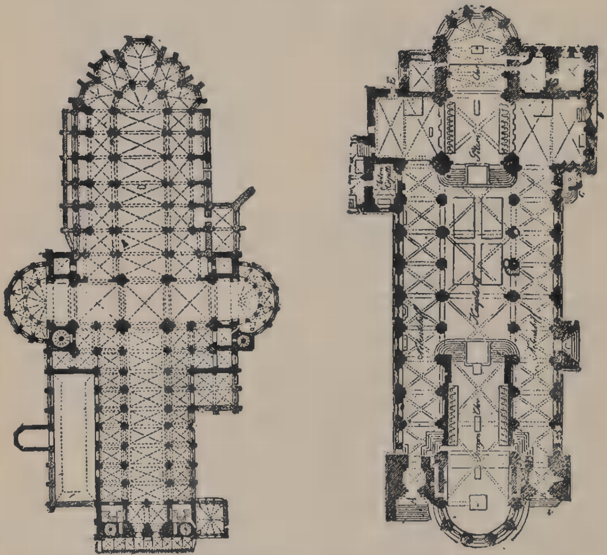

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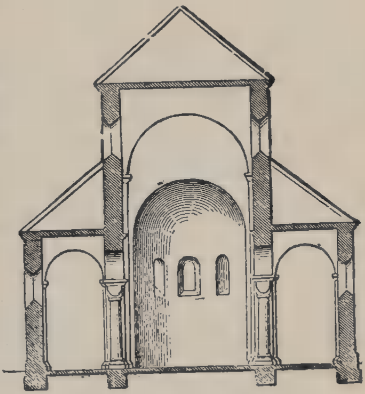
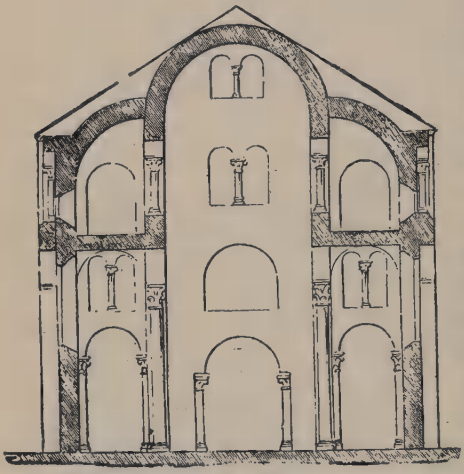


TRANSVERSE SECTION.

§ **Buttressing of the Nave-walls.** The architects of the Romanesque style strove to attain as great height for the nave as was possible after the structural principles of their edifices were tested. There resulted, in consequence, two modes of buttressing this nave: one was to elevate the side-walls (Fig. 71), and place the aisles and the nave under one gable-roof. There was adopted in the transitional Romanesque another mode of construction for strengthening this high nave-wall. It may be illustrated in this way: If the upper portion of the elevated aisle-walls and the roof over the aisles be cut away, there will remain half-arches abutting against the nave. Place now a shed-roof beneath these half-arches, and there results the elevated nave with flying buttress.

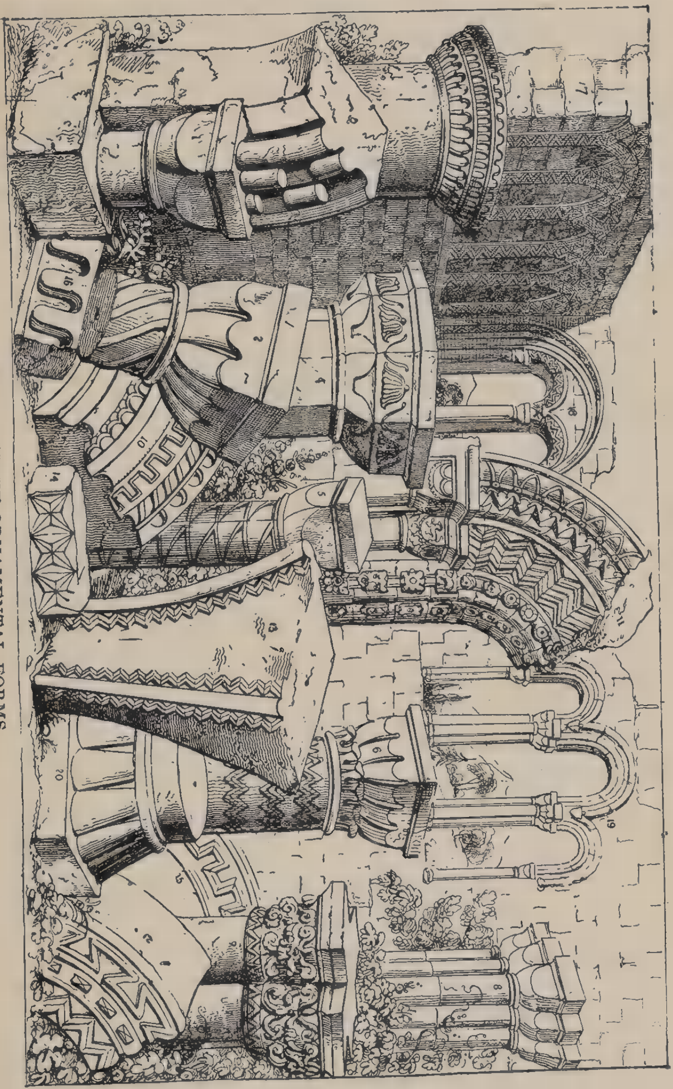
FIG. 71.



SECTION NOTRE DAME DU PORT.

§ **Romanesque Ornamental Forms.** The columns of the Romanesque church show great variety in form as well as in enrichment. The single column was circular or polygonal, (Fig. 72, *1*, *2*, *4*, *5*, *6*); the clustered column consisted of four or more columns, (*7*, *8*). Arcades were found in the windows (*18*, *19*), or on the walls (*17*). Surfaces were enriched

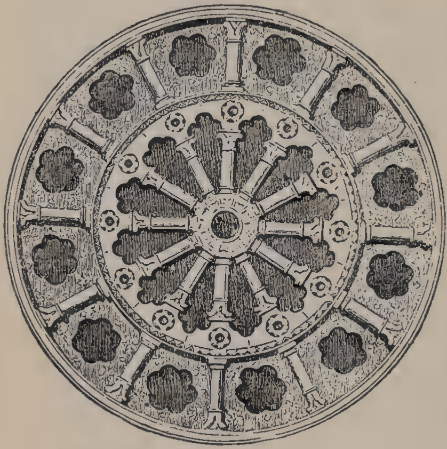
FIG. 72.



ROMANESQUE ORNAMENTAL FORMS.

with rosettes and other artistic designs. Those circular windows, which often pierced the walls of a Latin basilica, became transformed (Fig. 73) as soon as used in the Romanesque church. The window-opening was filled with spokes, as of a wheel, and the intervening spaces assumed shapes like foliated forms. This change took place because this circular window was used mainly as an ornament; and it is the forerunner of those rose-windows, which give their colored magnificence and beauty to the Gothic cathedral.

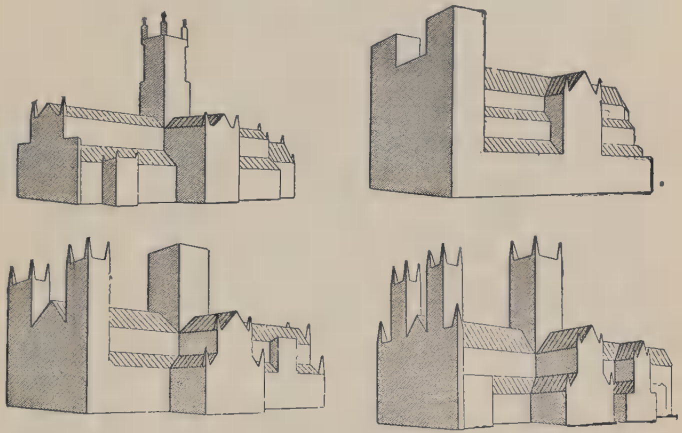
FIG. 73.



THE WHEEL-WINDOW.

§ **Types of Exteriors.** The exterior aspect of the Romanesque building may be reduced to four general types, according to the use of the tower. One type (Fig. 74) is where there is a tower over the crossing; another is where there are one or two towers at the western façade; a third type is where there are towers at the western front and one over the crossing; a fourth type has a double transept and central tower and two western towers. These, all except the fourth, are normal types. There are a few instances where there are four towers, two at the western front and two at the corners of the choir, and no transepts. Yet such edifices are to be classed with those which have two towers at the west and no transept. All these exemplify the type, but have certain parts wanting, and so are incomplete. Romanesque churches are structures which impress one as enduring because of the strength of their naves, well-buttressed on every side, and because of their mighty towers. They charm us because of their simplicity of structure and freshness of adornment. When, moreover, they began to assume, in the perfected style, the beauty of graceful forms in arch and column, and to be embellished with almost inexhaustible variety of ornamentation, they excite our highest admiration; for they are structures endowed with strength and mantled with beauty. Therefore they become fitting symbols of the religion of the cross, whose manifestation in human life is through strength and beauty of character, presenting a new type of manhood, simple, strong, and abounding in the graces of charity.

FIG. 74.

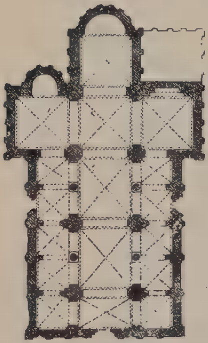


ELEVATIONS OF ROMANESQUE CHURCHES.

B. EARLY ROMANESQUE, 1000-1100.

§ **Constructive Proportions.** The mason, as he builds, will be our best guide in comprehending the informing thought of the architect in the Romanesque edifice. The crossing is central and the unit of measure in the ground-plan of the Romanesque church. One similar square, on the east side, is the choir; one such square on the north side, and one on the south side of the crossing, form the transepts; three or more, on the west side, make the nave. At the corners of these squares, along the nave (Fig. 75), great square pillars are placed; walls are built about the choir and the transepts of the height of the nave, and also walls on each side of the nave, usually at a distance of half the breadth of the nave, and with half the height of the nave. The transepts and choir, with the nave, give within the form of the Latin cross; and, as these three parts of the church have the same elevation, the exterior is also cruciform.

FIG. 75.



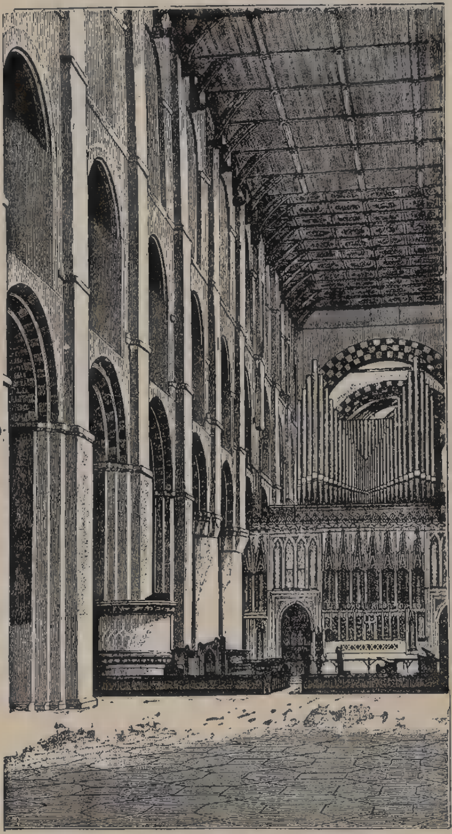
PLAN OF CHURCH AT ROSHEIM.

§ **Compared with Earlier Styles.** Omitting the square of the choir, the plan becomes that of the ancient basilicas; omitting all but one of the squares on the west of the crossing, and the plan is the same as that of the Byzantine basilica; and often it will be found that the constructive principles at the crossing and in the nave are the same as those of the Byzantine style. The massive square piers of the nave (Fig. 75) are built almost roof-high. Then great arches are set upon these piers along the nave; and transverse arches across the nave if the cross-vault is employed over the nave. Then the arch system of each square in the Romanesque church is like the arch-system which supports the great dome of St. Sophia. Another resemblance to the Byzantine style is present in the Romanesque style: the spaces between the piers of the nave are filled in after the manner of St. Sophia (*vide* Fig. 56), that is, by arcades upon columns. Here ends the obligation of the Romanesque style to the Byzantine. From here on the two styles are divergent.

§ **Division into Periods.** The same structural principles are present in the buildings of the early Romanesque and of the perfected Romanesque periods. The ground of difference is to be found elsewhere than in structure. Nor can the distinction be maintained upon the kind of ceiling above the nave, since the flat, cylindrical, and cross-vaulted ceilings are common to both. It is true, however, that the flat ceiling is more common in the early period. Nor is there any differentiating appearance in the form of the structures as seen from without. Yet a group of buildings have resemblances which set them apart as early Romanesque, and another, as perfected Romanesque. The earlier buildings have not so great luxuriance in ornamentation; the various parts are not as harmoniously ordered together in the construction. There is traceable a gradual development in the piers, so that vault-mouldings and pier-mouldings are in reciprocal relations. The towers become more and more organically connected with the nave and aisles. Yet it is not to be supposed that all later Romanesque buildings have the characteristics of the perfected style; for, where architects were not progressive, buildings, although built when the Romanesque style had become perfected, might yet resemble those of the early period.

§ **Flat Ceiling.** The nave with the flat ceiling (Fig. 76) belongs to the early Romanesque. It is to be noticed that the nave-moulding on the piers extends to the ceiling. Also, all these mouldings are the same on each pier. The breadth of the transept is indicated by the round columns at the choir. The nave terminates at the crossing with a moulded square column. The secret of the structure is revealed clearly: a series of square pillars, extending to the ceiling, and filled in with arches, constitutes the inclosure of the nave upon its sides. The chess-board ornament embellishes the archivolts. This nave is simple, massive, and lofty. The position of the pulpit in the nave, apart from the choir and connected with a nave-pier, marks a most significant change in the conduct of worship as

FIG. 76.

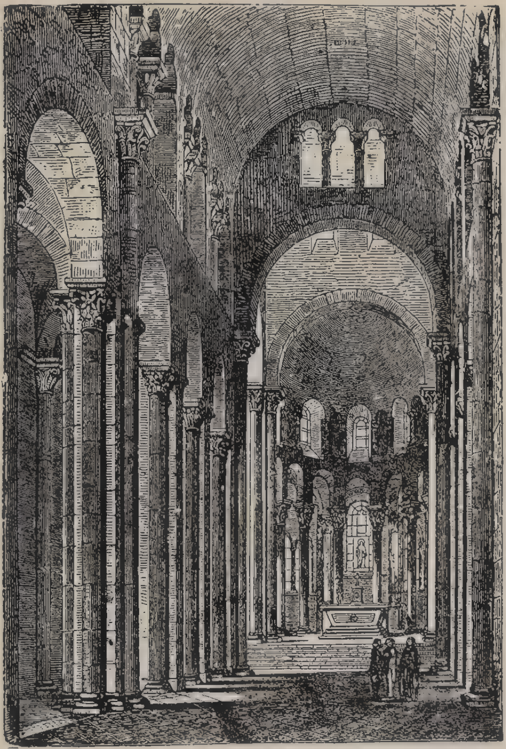


NAVE OF ST. ALBANS ABBEY CHURCH.

compared with the ambones of the earlier basilicas; for the ambones were a part of the lower choir.

§ **Cylindrical Ceiling.** The nave with the cylindrical ceiling (Fig. 77) has the principal piers indicated by a moulding, which extends above the height of the arches of the nave. There are two subordinate piers between the principal ones. The transverse arches, pierced by

Fig. 77.

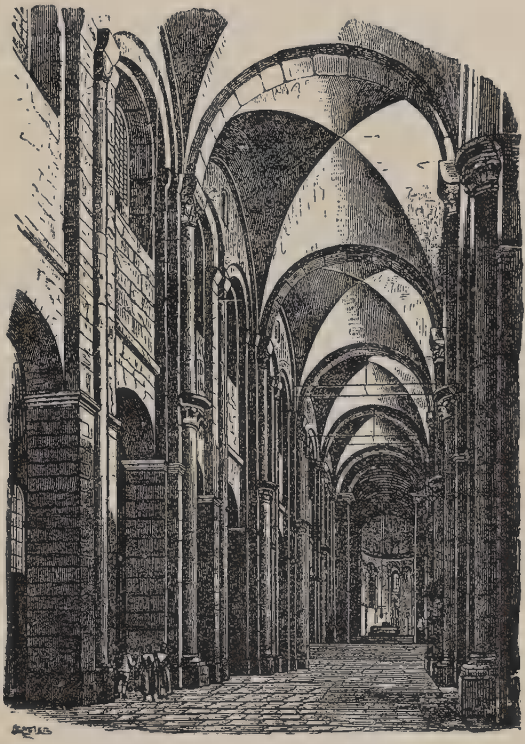


NAVE OF NOTRE DAME DU PORT.

windows, designate the crossing. The principal piers at the crossing have the same front moulding as the principal piers in the nave. It is in this way that the squares in the plan of the nave are made apparent. Further, ornamentations like capitals are carved upon the mouldings of the piers. And there is a simple and chaste beauty in the arcades of the nave and the arcade windows above, which is most pleasing to the observer. This nave also is simple, massive, lofty. It is, moreover, very much more attractive than the nave with the flat ceiling. The church, which is Notre Dame du Port, at Clermont, has a choir-aisle. It is interesting to note that the arcades in the choir rest upon lofty and beautiful columns, and they support the half-dome of the apse, which is pierced with a circle of windows. When the sunlight touches the windows in the eastern walls and lights up their colors, then, beyond the choir, seen through its arches and windows, there is a splendor of color such as the sun, at its parting, often gives to clouds in the western sky.

§ **Cross-vaulted Ceiling.** The nave with the cross-vaulting (Fig. 78) is constructed in the following manner: At the corners of the squares, in the ground-plan of the nave, pillars are built, and arches are set upon these lengthwise with the nave, and also arches crosswise. And cross-vaults are then built upon these arches. Another series of squares, vaulted in this manner, makes the transepts and the choir. This vaulted construction is the cruciform church; herein is all worship performed. These piers, which support the arches of the vaulting, are moulded. The appearance of this moulding is that of one column set above another. Between these principal pillars one of the same form and size is placed, in order to sustain the arches, which are used to fill in the nave compartment. These secondary pillars are not so richly moulded. The upper arcades are cumbersome, but massive, having strength, but lacking in grace.

FIG. 78.

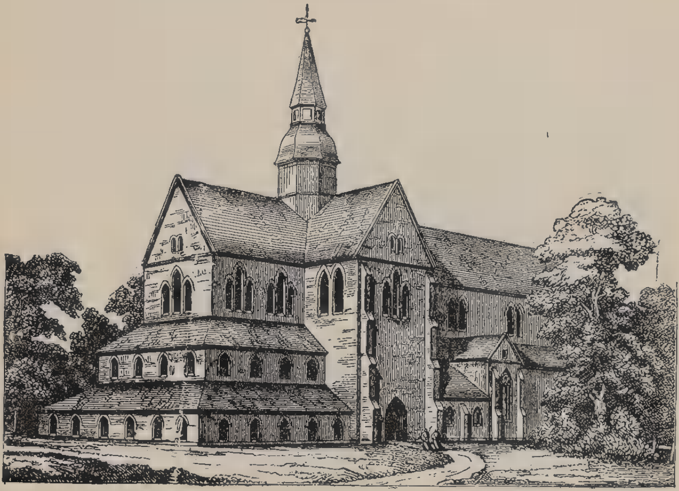


NAVE OF THE CATHEDRAL OF SPIRES.

§**The Early Romanesque Interior.** This stern, solid, cross-vaulted, cruciform church, impressive through the imposing height of its nave, belongs to the early Romanesque period. Walks were made around this cruciform church having half the width of the nave. Outer walls were built along these side paths, and were pierced with windows at points corresponding to the spaces between the nave-piers. These aisles were usually vaulted. The vast significance of the Romanesque church from within may now be understood if we take our stand at the crossing. The windows of the transepts flood the crossing with light; the choir, through its windows, sends unobstructed light down the nave, while from the aisles between the great piers come bands of light, which alternate, with the shadows of these great piers, across the nave. A cross of light, in places touched with shadow, is the Romanesque church as viewed from the crossing.

§ **Cruciform Exterior.** Form, not finish, occupied the thoughts of the architects in the early Romanesque. They developed the type, retaining its characteristics in all varieties; they left it to their followers to perfect the form and give to the structure its beauty through appropriate adornment. The interior of the early Romanesque church was constructed so as to keep in full view, when seen from the crossing, its cruciform plan. The exterior was moulded by the inspiring thought of the interior, so that to the observer without, the edifice is a cross. Gable-roofs were set over the ceilings of the choir and nave, making the long arm of the cross; and gable-roofs over the ceilings of the transepts, making the shorter arm. Shed-roofs were built above the ceilings of the aisles and abutting onto the nave. The simplest form of the exterior is seen in Fig. 79. The lofty clerestory of the church is pierced with many windows, and so the nave, choir, and transepts, or the church proper, is filled with light. There is, above the crossing, a small cupola, hardly prophetic of the marvels of beauty which appeared here in the succeeding period of the Romanesque style. The two-storied buildings about the choir, or the eastern end, were the conventual dwellings. Here the brotherhood lived, guardians of the church. The edifice is simple, without external ornament; lofty, and so impressive; symbolical, being a most noble elevation of the cross.

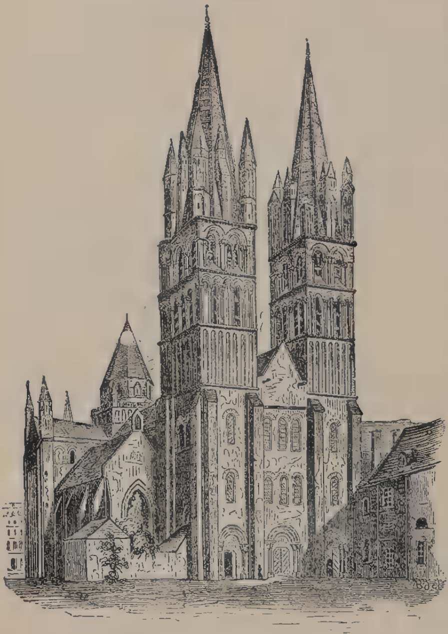
FIG. 79.



CISTERCIAN CHURCH, AT RIDDAGSHAUSEN.

§ **Type with Central Tower.** The Latin basilica has before the altar the triumphal arch, sign that the authorities of the Church and the State were united; the Byzantine basilica has above the crossing the glorious dome, sign that the greatest splendor of the building now extended over the nave, where the believers sat. A new sign was raised above the crossing of the Romanesque church. The choir, the seat of the clergy, was separated from the nave, the place of the laity, by the transept-arms. The crossing was the place where choir

FIG. 81.

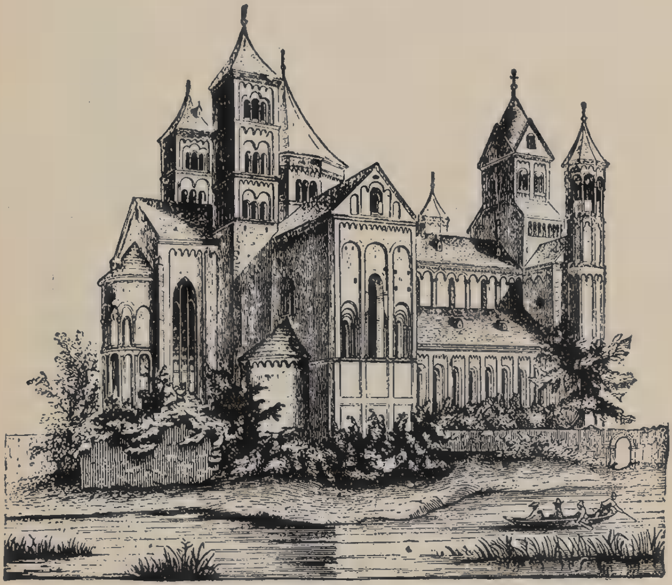


HOLY TRINITY, AT CAEN.

eye ranged upward along its surface, the tower became more and more beautified. The transalpine nations loved the lofty grandeur of the towers of their churches. Some element seemed embodied in them kindred to that new aspiration within the soul, which Christianity planted and caused to grow, and which lifted them above the barbarism of their forefathers, enlarged their intellectual horizon, and led them to establish governments which were independent of the domination of a priesthood, and which have braved a thousand storms. The Romanesque type, unmodified except for its enrichment through more striking proportions and decorations, is an abiding type; for the edifice is churchly in all its parts, and suggests by its form, within and without, the great symbol of the Christian religion.

§ **Type with Eastern and Western Towers.** These edifices have two choirs, the principal one at the east, and a secondary choir at the west. The Abbey Church at Laach (Fig. 82) is one of the earliest examples of this variation. Until imitation becomes the guide, the great features in an imposing edifice are but embodiments, expressive of sympathy with, or antagonism to, dominating thoughts in the body politic. Such we have

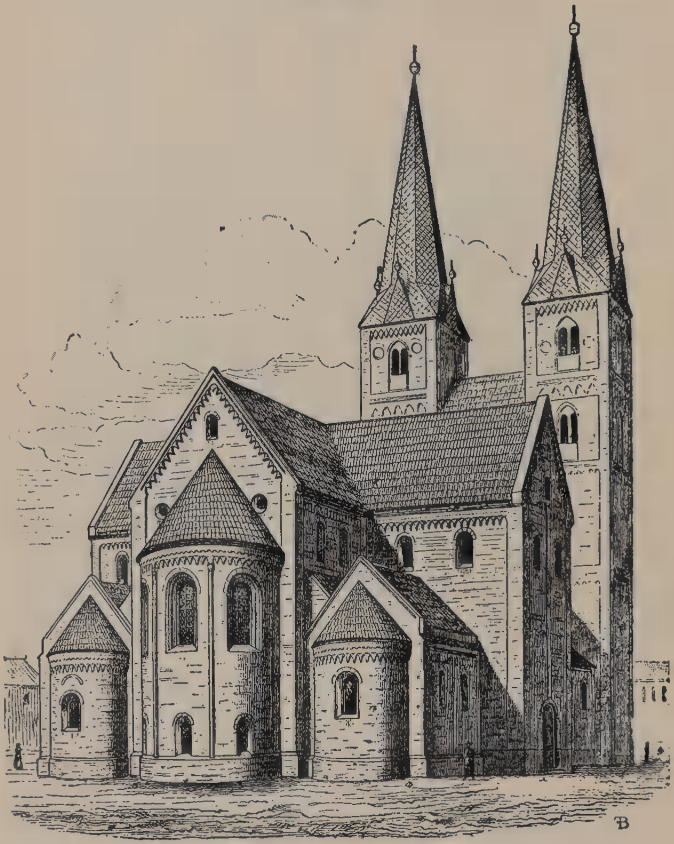
FIG. 82.



ABBEY CHURCH, AT LAACH.

found to be the case when the towers at the west of the church were completed, not by small turrets, but by spires. The struggle between the Church and the State was a contest between gigantic powers, and naturally the clergy sought to remove associations with any parts of the church edifice, reminding all that the victory at times was with the rulers of the people in this conflict. At least the new use of towers in the Abbey Church at Laach seems to aim at the removal of any new and significant associations connected with the western façade. The eastern choir and principal one has before it, and above the crossing, a beautiful octagonal tower; and there is at the western front a choir, above which is a central tower of different shape, yet attractive. Towers were set at the corners of the western

Fig. 83.



TYPICAL ROMANESQUE CHURCH.

façade, and in the eastern angles of the transepts. If the tower imports to the mind the idea of strength, then the use of towers in this church declares that strength is to be found near the altar; for the eastern towers are mighty, while those near the entrance, away from the altar, are mere ornaments. The western entrance was also associated with the clergy by the presence of a western choir.

§ **Typical Romanesque Church.** Transepts at the east and towers at the west (Fig. 83) make the completed type of the early Romanesque church. There is a simplicity in the structure, a chasteness in its few mural decorations, a charm in the circular form of its apses, a symbolism in the cruciform shape behind the massive and lofty towers, that fit this edifice to express, with peculiar appropriateness, the genius and the transforming power of Christianity. This early Romanesque church, unmodified, has become an abiding type in ecclesiastical architecture.

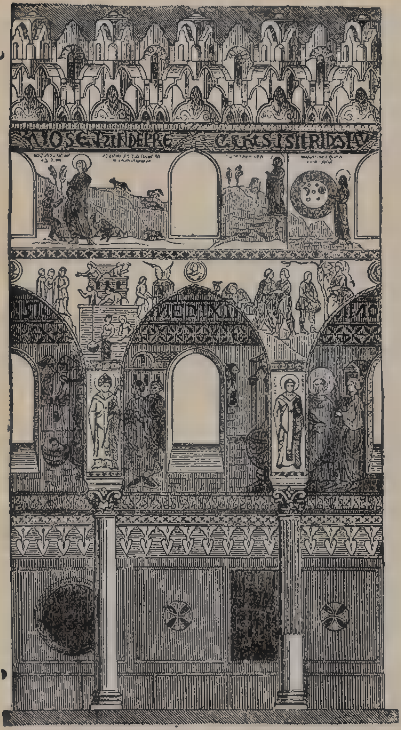
C. PERFECTED ROMANESQUE, 1100-1200.

§ **Distinguishing Characteristics.** The system of cross-vaulting is certainly most common in the churches of this second period. The cross-vault over the nave made the building seem compactly joined together, and practically resulted in making stone as pliable and more suitable for constructive purposes than wood. A further benefit came from this system of vaulting. It gave to the nave, through the ribs of the vaults, the appearance of a lofty vista, such as one sees when the branches of great trees meet over some forest highway. The vaulted nave of the Perfected Romanesque was the true forerunner of the Gothic nave. It is not the cross-vault over the nave that distinguishes the perfected Romanesque building.

Rather, the distinctive signs will be found in a more symmetrical development of the interior and exterior characteristic features of the Romanesque style; also, in a more elaborate ornamentation of the edifice.

§ **Flat Ceiling.** The nave-bay (Fig. 84) shows the greater artistic excellence in this period. The nave-arches are high, and, in consequence, there are no gallery-arcades above them. The clerestory is built upon this high arcade of the nave, and the beams of the roof are placed upon this wall. The whole arrangement of this bay is most pleasing. The beautiful columns, the piers of masonry upon them, ornamented with the richly-robed figures of Popes; the arches, resting on these ornamented piers, and their spandrels beautified with pictured story; the wall-spaces also of the clerestory presenting likewise, in symbols what saints had wrought or suffered,—all combined to make a scenic display of sacred history, not unlike that found on the

Fig. 84.

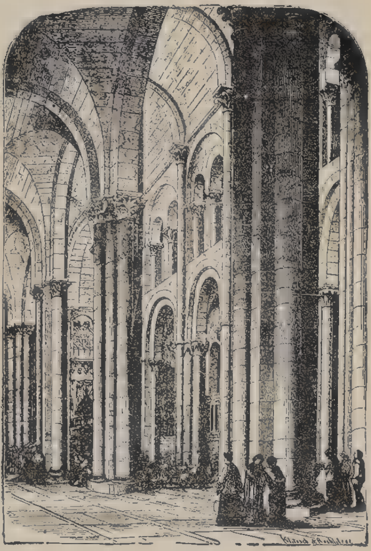


CHAPEL AT PALERMO.

walls of the Latin basilica. But the lofty arcades, the greater light from the side-aisles, the graceful symmetry and harmony of all parts, make evident the new style as compared with the basilican; and, when we compare the plain, solid features in the nave with the flat ceiling belonging to the early Romanesque period, these same artistic beauties discriminate between the early and the perfected periods of the same style.

§ **The Cylindrical Ceiling**. The example chosen to represent the advance of the perfected style in the cylindrical ceiling (Fig. 85) has not the elegance which the corresponding example of early Romanesque (*vide* Fig. 76) possesses; yet there is discernible a greater progress in organic construction. First the high piers supporting the longitudinal and the transverse arches of the nave are indicated by columnar moulding extending to the spring of the tranverse arch. The method of filling in the spaces between these piers is clearly shown by mouldings on the piers. The gallery is made to harmonize with the construction below, but the mouldings are lighter The arches across the nave are visible on the ceiling.

Fig. 85.

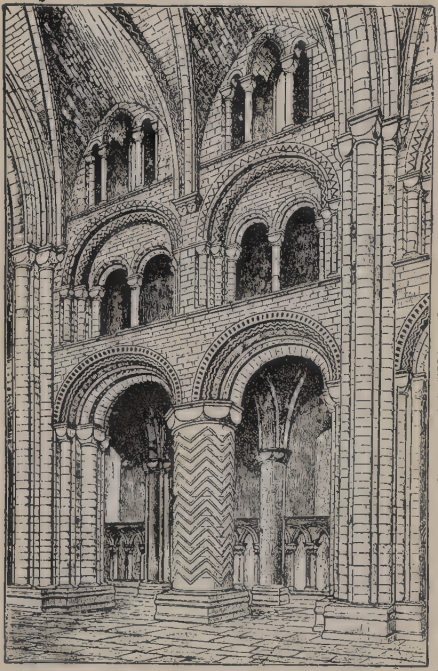


NAVE OF CATHEDRAL OF SANTIAGO DE COMPOSTELLA.

The uniformity in the type of the piers along the nave, and the similarity in each nave-bay, combine to give the impression that, as compared with the earlier period, this cylindrically-vaulted nave of the perfected Romanesque style is a more perfect organic structure.

§ **Cross-vaulted Ceiling.** The most signal triumph of genius, as displayed in the interior of a Romanesque church, was accomplished when the architects of the perfected Romanesque style produced a nave in which all the parts were organically constructed together and made beautiful by the glories of sculptured column and arch. Such a nave is given in Fig. 86. Notice, first, the principal pier. The base is, in form, like a Greek cross; the body of the pier is built on the crossing of the arms. The two arms, extending into the nave and aisle, support the pilasters on which transverse arches are built; the other arms carry the support for the longitudinal arches. The mouldings of

FIG. 86.



NAVE OF DURHAM CATHEDRAL.

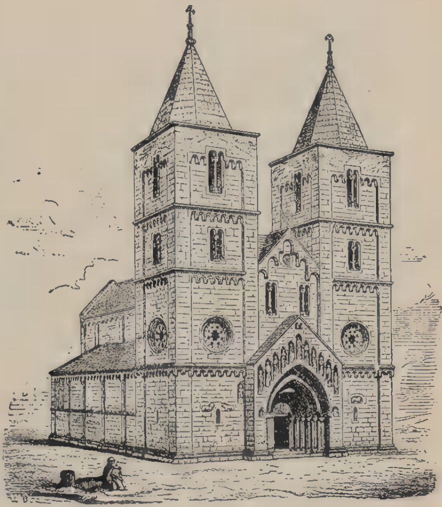
the pilaster on the nave-side are like tall, slender half-columns, which support transverse and diagonal ribs for the vaulting. The other mouldings of this nave-pier indicate the different archivolts resting upon them. The secondary pier is in marked contrast with the principal one, and rightly so, since it simply aids in filling in the spaces between the principal piers. Yet this filling-in is massive, like the work of Titans. The base of this secondary pier is a square; on it is placed a huge columnar pier. The normal round capital is chamfered off so as to indicate, in a measure, the archivolts upon it. Thus the half-circular face of the capital fronting the nave, marks the impact of the outer archivolt of the longitudinal arches. The side circular face is where the inner archivolt of the longitudinal arch springs from. The third circular face is between these two, and is beneath the ornamental archivolts of the longitudinal arch. The pier which supports the arches of the gallery above this secondary pier is polygonal, and receives mouldings suggestive of the archivolts, which lean against it for support. Corbel-brackets furnish the rest for the moulded diagonal ribs of the vaulting, which are over the secondary piers. The triple arcade in the opening of the cross-vault makes a most beautiful clerestory.

§ **The Perfected Romanesque Nave.** The strength, the beauty, and the constructive unity and symmetry of this nave, combine to produce an impression upon the observer hardly surpassed by the contemplation of any interior within the limits of ecclesiastical architecture. And it may be said that the cross-vaulted nave of the perfected Romanesque, with its lofty piers and its beautiful sculptured enrichment, furnished all the requirements for those astonishing architectural wonders which have rendered the Gothic nave of the Christian Church more impressive and more amazing than the massive and tall columns which made the columnar walk to the adytum of an Egyptian temple. Indeed, the sculptured beauty of a Grecian temple is the only worthy compeer of that beauty and grace which adorn this Romanesque nave, that noble highway before God's high altar in the Christian cathedral.

§ **Exterior Beautified.** The exterior of the Romanesque church in the period of the perfected style attracted, likewise, the genius of the architect, and under the wizard touch of his hand became transformed into marvels of beauty. The exterior typical form, which is cruciform, and has a central tower above the crossing and two mighty towers at the west front, was modified and beautified according as the influence of the Church or of the State was dominant; for, during this period, religious and civil authorities were still in a great struggle, striving to define the rights and draw the limits of these two great divinely-ordained authorities among the people.

§ **Church with Western Towers.** Sometimes the church at the eastern termination was left without any exterior attraction. This is remarkable, since for centuries the clergy had assembled all the splendor of the church about the choir. The early Romanesque style had marked the position of the choir by the transept-roofs and central tower. It was, therefore, no mere chance, but a bold defiance of established custom, when a church (Fig. 87) was built with most commanding towers on the west, and not even the transept to indicate the division within of nave and choir. The mural decoration is new, harmonious, and artistic. Instead of long, narrow, rectangular divisions upon the walls, the divisions of the towers and the nave approach the square. Each compartment of the towers has its own characteristic ornament. The lowest has sculpture; the north tower, lions; the south, a lamb. The compartment of the second story has beautiful circular windows. Bipartite windows of different height adorn the smaller square compartments of the third and fourth stories. Pyramidal roofs complete the towers. The culminating beauty of the western façade is found at the portal. In structure it is a deeply recessed porch or a deeply recessed archway before the door of the church. Above the arch is a circle of niches, each sheltering the statue of a disciple, excepting the central niche, which contains the figure of the Christ. The series of receding arcades within the portal, rich in columns and sculptured archivolts, give a new and remarkable beauty to the entranceway into the house of God.

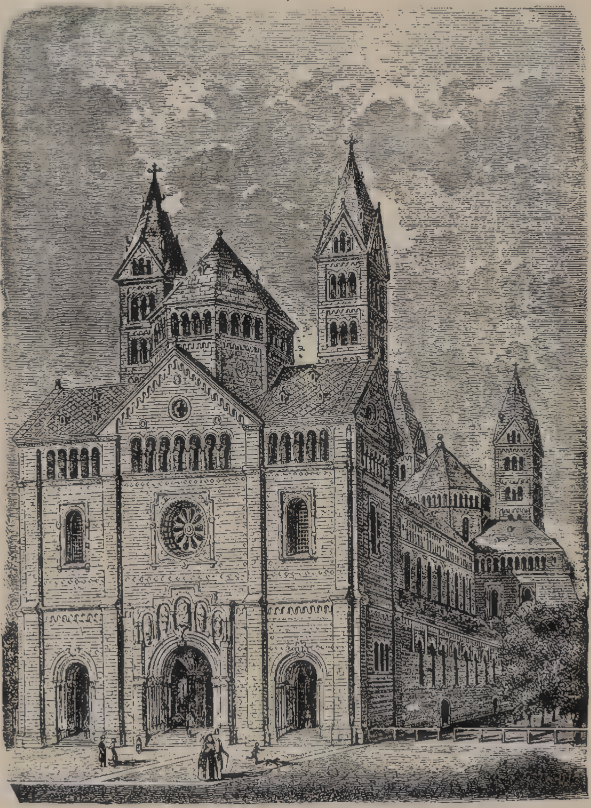
FIG. 87.



CHURCH OF ST. JAK.

§ **Church with Eastern and Western Towers.** The impression which this arrangement of towers makes is that the tops of towers are merely used as ornaments for the church; since the tall, slender bodies of the towers are completely shut out from view (Fig. 88), hidden, in truth, in corners. This church has erected at the crossing an octagonal dome. A remarkable alteration in the western façade is to be observed. Every suggestion of a tower is banished from this front. The structure is like the transept in appearance, having a similar

FIG. 88.



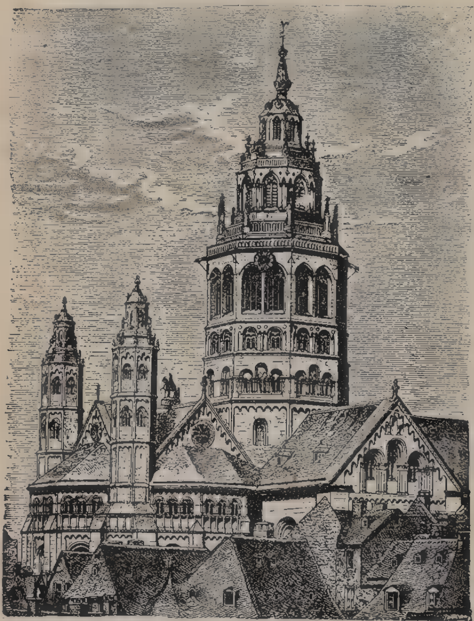
DOME AT SPIRES.

gable-roof and central dome. Thus further is emphasized the hierarchical thought that the tower idea, in connection with the church, is not a significant, but rather an ornamental feature of the church. This western porch is the ardica of the Latin basilica, developed into a beautiful and imposing structure. Its front is tripartite, corresponding to the aisles and nave of the church. The side divisions are symmetrical. The lowest story has a deeply-recessed and richly adorned portal; the middle story has a large window with attractive square stone-framing about it; the upper story has an arcade, within whose arched niches statues of saints are set. It is the central portion which is new in its cluster of beautiful forms. The central portal is deeply recessed, magnificent in size, most striking in the charm of its adornment. Five niches are placed above the archway, each holding an imposing statue. The division above the portal has a circular window, both large and beautiful; the third story has niches within arcades, and the gable has the quatrefoil opening. Remove the ornamental towers from this façade, build above each side division great massive high towers, there would result a church of the perfected Romanesque style, rivaling, not unsuccessfully, the impression that comes to the observer when he beholds the imposing front of the Gothic cathedral.

§ **Church with Central Tower.** The Cathedral at Mainz has two choirs, the western one being a later addition. The ceremonial worship of the Papal Church was always a splendid spectacle, finely adapted to impress the popular mind. The enhancement of this influence became increased by two choirs. Provision was made by this arrangement for antiphonal services, in which choral responses added their mysterious impressiveness.

The choir of this cathedral (Fig. 89) will present the general features of the perfected Romanesque, although in its external constructions there are discernible modifications which belong to the transitional period. The octagonal form of the choir, windows with deep recesses, and the circular windows, are readily recognized as familiar features. The cross-gable roof over the choir is new in the style; but the great central tower, called the Pastor's Tower, chains to it all attention. The beautiful variety in its main stories adds to its beauty. The surmounting cupola, although modern, blends most harmoniously with the whole structure. The architect is willing to let us admire the charms of the structure unaided by himself; but he will not permit us, without assistance, to estimate its size. The equestrian statue at the crossing of the gables above the choir is strangely placed; but it is set there as a measuring-rod, for all know the size of a man upon horseback. It seems small when elevated to this lofty pedestal; but by it we may

FIG. 89.



CHOIR OF THE CATHEDRAL AT MAINZ.

measure the two turrets at the eastern termination of the choir. These small towers are thus seen to have considerable magnitude when brought into measurement by means of this equestrian statue. Yet these little towers are pigmies compared with the gigantic central tower. Externally, the greatest splendor of the edifice is this Pastor's Tower above the crossing. And we feel it is the hand and masterly genius of the artists of the perfected Romanesque style, which wrought the beauty of the central tower, the charms of the clustered columns in the transept-windows, and of the choir-walls pierced with wheel-windows and graceful arcades. All these features blend in pleasing harmony, making the cathedral one of the most important and beautiful monuments of the Romanesque style.

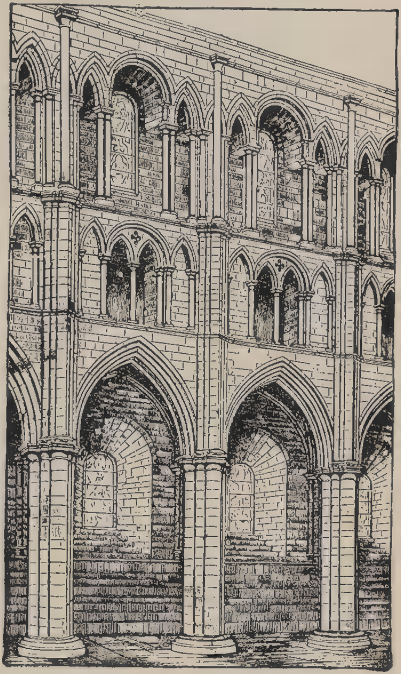
D. ROMANESQUE TRANSITIONAL STYLE, 1180-1250.

§ **Constructive Principles.** The culmination of ecclesiastical architecture was reached in the Gothic style. Marvelous are the Gothic edifices through their symmetry and grace of form and the lovely beauty of their ornamentation. The transitional style of the Romanesque Church is the prophetic anticipation of Gothic architecture. The new constructive principles were the pointed arch and the buttress. In the transitional style this form of arch is employed for the most part in the vaulting and the arcades of the nave. Heretofore the round arch had prevailed in Christian architecture. When the round arch leaped from column to column, supporting the unbroken walls of the nave, it gave the constructive secret of the Christian basilica. When this lower arcade of the nave was raised as high as the roof, and below was filled in with secondary and ornamental arcades, then the constructive secret of the Byzantine and Romanesque churches was discovered. The Gothic church, likewise, placed its nave-arches upon columns, and built upon them the triforium and clerestory, or else it raised its piers roof-high, and built within them clerestory and triforium, using, however, everywhere the pointed in place of the round arch. The transitional style is Romanesque architecture in construction with new effects obtained through the pointed arch.

§ **Pointed Arch and Buttress.** The pointed arch was employed subordinately in the transitional style, appearing in the lower arcades of the nave and in its vaulting, while the windows and portals and towers retained the round arch. Important modifications followed this innovation, and so suggestive were these changes that ultimately the Gothic constructive system was developed, which was entirely dependent upon the mechanical advantages of the pointed arch. The transitional style introduced also the use of the buttress, yet only as a means of strengthening a wall, while the distinctive and most important use of the buttress in the Gothic style was to make it the principal support of the aisle-piers, and the wall was simply filling-in of spaces between these buttressed piers.

§ **Nave of the Transitional Style.** All piers of this nave (Fig. 90) are principal ones. They reach to the roof-level. The nave-ceiling is flat. The high-pointed arch in the lowest story of the bay permits the light to come from the side almost unobstructed. A glance within this bay will show how thick the aisle-wall was made. The arcade of each bay in the gallery has a central round arch with two pointed arches within. There are two pointed blind arches on each side of this central round arch. The clerestory introduces a beautiful yet harmonious modification. All the arches are open, thus letting light enter more freely; the side-arches of the triple-arched arcade are pointed, and in order to give the appearance of a continuous arcade in the clerestory, the upper part of the nave-piers have the mouldings of a pointed arch. It may be fairly doubted whether this substitution of the pointed arch for the round arch as a decorative element is anything more than an incongruity, an evidence that the architects were wrestling with the problem of new forms, desiring to cast aside the old. The beauty of the nave is not in its sculpturing, for there is no splendor of capital, frieze, and cornice. Simple moulding of arch and pier, and simplest capitals constitute the ornamentation. The beauty in the nave is in the new form of arch in contrast with the old; for the pointed arch attains greater height with the same span than the round arch, and, in consequence, the masonry about the arch is less heavy, and so the nave looks less cumbersome. It has the beauty of promise. Gothic architecture was its fulfillment.

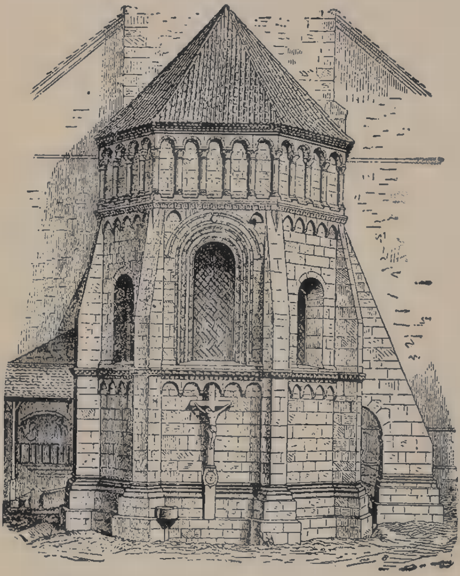
FIG. 90.



BAY OF RIPON CATHEDRAL.

§ **Choir with Buttresses.** The employment of the buttress is shown in Fig. 91. The polygonal choir is buttressed at the angles. The finish of the choir is Romanesque; the round windows, the arcade beneath the eaves, the arcade-corbel tables, are all familiar. The buttresses are new, and anticipate one of the most remarkable features of the exterior in the Gothic style. In passing, attention may be called to the crucifix beneath the central window of the choir, and the bowl for holy water against the adjacent buttress, evidence of that effort, in this period, to inspire always reverence for the great and fundamental doctrine of Christian teachings, respecting the passion of our Lord.

FIG. 91.



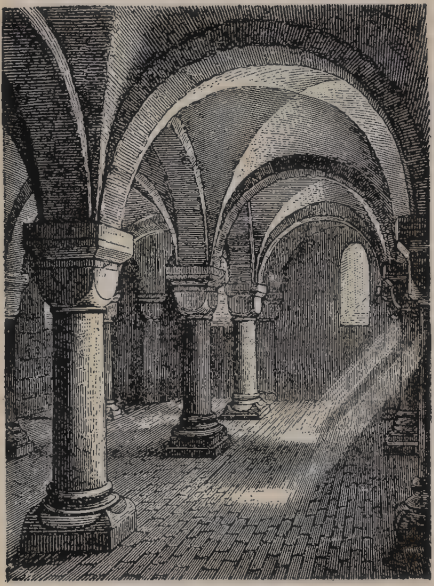
CHOIR OF CHURCH AT PAFFENHEIM.

§ **Prophecy of a New Era.** The transitional style indicated the entrance of a new spirit into ecclesiastical architecture. Old forms began to yield under its power; the promise of a new era began to dawn. We have traced the influence of this new force as it modified the nave and the exterior of the choir. It had strength only to modify, not to reform. Sometimes this new impulse exhausted itself when it had introduced the pointed arch in the nave; at other times it seemed to pervade every part of the edifice, changing arches and their grouping, shafts of columns and their capitals at the portal, as well as giving a new aspect to the external appearance of the whole building. This transitional style of the Romanesque architecture was a protest against the tyranny of ancient forms, which had lost their worth to the people. These forms were associated with the priesthood; they were developed under the fostering care of the clergy; all but the towers witnessed to the dominance of the priest. The people came into spiritual power, and they changed, not alone the attitude of the priest, but even the outward appearance of the edifice in which he officiated. This movement culminated in Gothic architecture, being the new spirit which had entered into the people, made manifest in stone.

E. STRIKING FEATURES OF THE ROMANESQUE STYLE.

§ **The Crypt.** The nave, with its side-aisles, the transepts, and the choir, are the essentials in a Romanesque church where the type is unmodified. The extension of the side-aisles across the transepts and along the choir has been described; ultimately there was formed in this way a choir-aisle. The choir was pre-eminently for the clergy. There was built beneath the choir of many of the larger churches crypts, wherein were preserved the relics of saints or the mortal remains of distinguished prelates and persons of princely rank. These crypts extended along the choir's length, and sometimes even beneath the crossing. Entrance to them was by flights of steps along the sides of the choir. Cross-vaultings, resting upon pillars (Fig. 92), made the roof of the crypt. The appointments of these crypts, having usually three aisles and an altar, made them a kind of underground church. The floor of the choir often became raised in consequence of the crypts. This accounts for the staircases in many churches which lead from the nave to the choir. Generally, it may be said that an elevated choir has beneath it a crypt. The later Romanesque churches had in them no crypts, because chapels, dedicated to saints or consecrated as the place of interment for either bishops or nobles, were arranged along the aisles of the nave or of the choir.

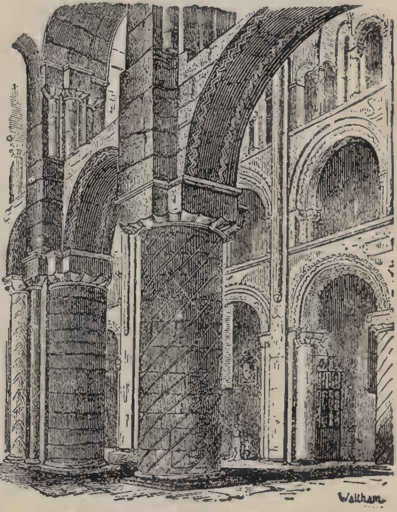
FIG. 92.



VAULTED CRYPT.

§ **The Nave.** The impression which the nave of a Romanesque church makes is entirely different from that of the Latin or Byzantine basilica. An observer is instantly aware of this fact. He feels the sense of security when his eye sees huge piers supporting massive arches to sustain the vaulting of the roof. He experiences the feeling of wonder when the reciprocal relation between the vault and pier is discerned, revealing a perfect organic construction; and, as soon as the eye counts the numerous kinds of marvelous enrichment on the piers and arches, he gives to what he beholds his fullest admiration. The pier-column (Fig. 93) is seen to be massive and short as compared with its thickness. Great, heavy arches, to support the masonry of the gallery and clerestory, are set on these pier-columns. Spiral lines twine around their shafts, and zigzag lines adorn their archivolts. Foliage-decoration found but little favor in the Romanesque style. Endless variety in form and in rich lineal designs combined to give the charm of ornamentation to the edifice. As regards form, the column and capitals are circular, polygonal, or clustered, and are either plain or decorated; windows are made bipartite or tripartite by inserted columns and arches; portals are constructed with receding series of columns and arches. A glance at the Romanesque edifice shows a gorgeous array of lineal embellishment with which it is adorned. Scarcely were arabesques more characteristic of Eastern mosques than lineal decoration was of the Romanesque style. The luxuriance in its ornamental forms fairly bewilders one.

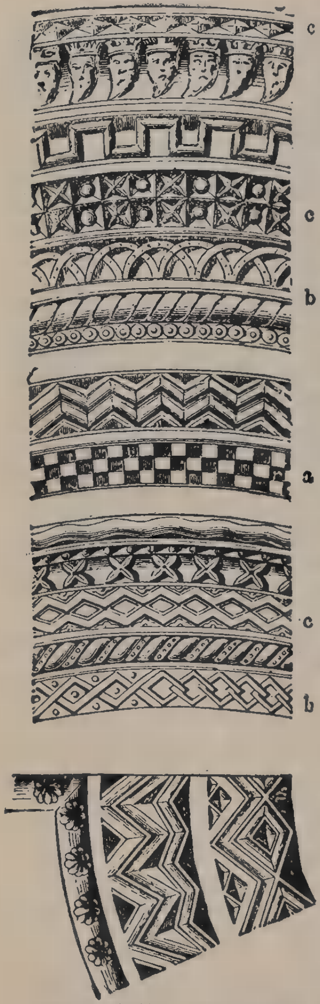
Fig. 93.



NAVE OF CHURCH AT WALTHAM.

§ **The Various Mouldings.** The fertile resources of this style become evident when the lineal ornamentation is separated into its varieties. The most common are given in Fig. 94. Beginning at the top, we see the diamond fret; then, in order, comes a moulding that is composed of crowned heads. Below these are the embattled fret, the nail-head and star-moulding, the interlaced arches, the cable, the chevron, the chessboard moulding, the nail and star-moulding, a form of the lozenge, another variety of the cable, the chain-moulding. The lowest pattern is an archivolt having the triangular and the embossed frets, and, in addition to these, the billet-moulding and those with scallop patterns, which are very common. These forms of ornament were wrought into symmetrical combinations upon shaft and archivolt. The patient fidelity of these builders astonishes us; they cease not to labor until they make beautiful their edifice. They did not borrow from nature suggestion of leaf and vine; for, as if disdaining all suggestion from the flow-

FIG. 94.

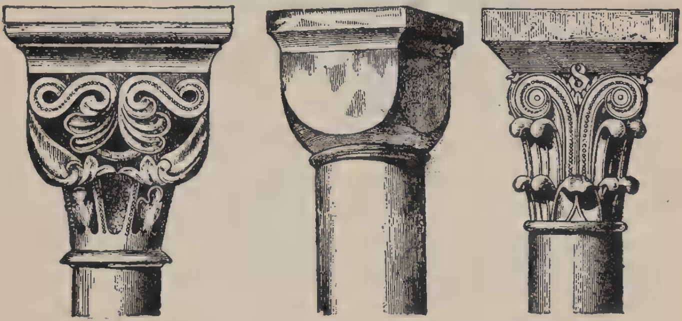


ORNAMENTAL PATTERNS.

ers of the field and the trees and vines of the woods, they hold simply to geometrical forms and artistic designs. Or, if we insist that these laborers are also imitative in the ornaments which they used, we must go to the mineral world and find resemblances to their ornaments in those beautiful crystals which are buried in the heart of the rocks. Indeed, where the artistic forms assume the shape of stem and leaf, they carve on the stalks ornaments of jewels having facet-faces like crystalline shapes. In this way we are reminded that nature, through her botanical forms, contributes little or nothing to these architects when they seek to adorn their buildings.

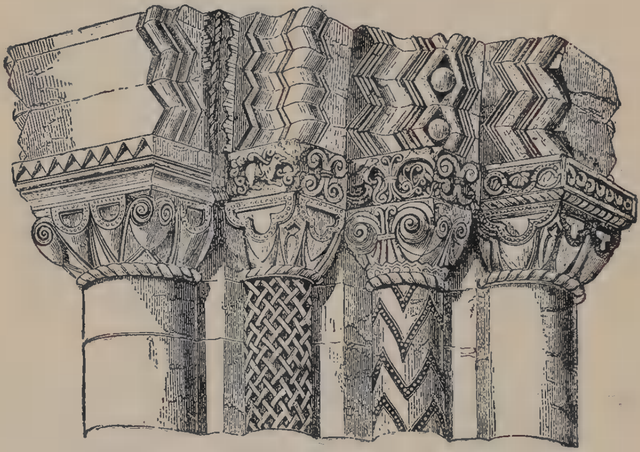
§ **Column-shafts and Capital.** The ornamental column, with its slender shaft and peculiar capital, is found in the jambs of windows and doors and in the arcades of galleries. The capitals were a great departure from the classical type. There are three forms (Fig. 95) to be distinguished: the cubiform capital, in which the lower part of the cube is rounded off and curved toward the shaft, thus mediating between the curved surface of the shaft and the flat face of the upper part of the cube;

FIG. 95.



the bell-shaped capital, in which the neck is narrow, and gradually expands, bell-like, into the capital itself. The third form is compound of these two, the lower part commencing as the bell-shaped capital, but the upper suddenly assuming the form of the cube. These capitals and shafts have received various enrichments. Fig. 96 gives an example showing how shaft, capital, and archivolt have each their own ornament, yet all are made to blend most harmoniously together. Where these masters of form obtained their first suggestions must ever be matters of speculation. It may be that they arrived at these forms of shaft and capital by transforming the great types which Grecian and Roman architects employed in their temples, or it may be that they owe to Byzantine art great obligation for them. Whichever may be the case, it is still true that the modifications which these mediæval artists made in them were little short of establishing them as new creations.

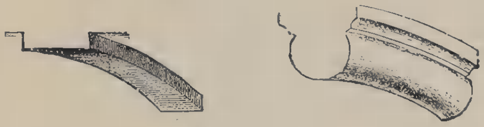
FIG. 96.



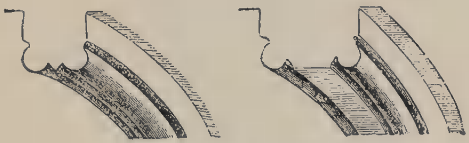
CAPITALS FROM ST. PETER, NORTHAMPTON.

§ **Mouldings of the Cross-vaults.** Often the ribbed arches of the vaulting become the readiest means by which edifices are assigned to their period. Certain, it is, that a gradual progress from simple to richly-moulded vault-ribs is traceable. The early mouldings (Fig. 97) are flat in their faces or else made half-round; the ribs of the later periods are more elaborately carved into half-rounds at the edges, with intervening flat or angular faces. The ceiling gave, by means of these carved ribs, a very pleasing impression. Yet the time was not far distant when the cross-vault was to be, not pleasing merely, but strikingly decorative because of the rib-mouldings, when, indeed, all the great supports of the building seemed designed to lead the eye upward to these same rib-mouldings; for the pier-mouldings were simply guides to those of the vault. As long as the cross-vault was only the roof of a crypt it remained plain, for its abode was in darkness; when it roofed the nave, it stood in the light, and was made beautiful.

FIG. 97.



Rib-Arches of the Early Period.

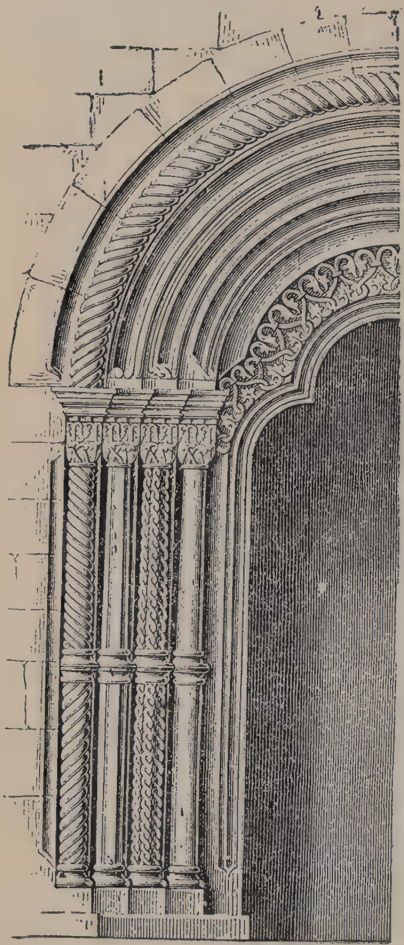


Rib-Arches of the Late Period.

MOULDINGS OF THE VAULTS.

§ **Portals.** There is almost Grecian purity of taste in the Romanesque doorway (Fig. 98) before ornamentation became redundant. The trefoil arch with the heart-shaped frets above, spans the doorway; the beveled jambs have against their sides ornamental columns. The form of the shafts, not of the capitals, as in Grecian orders, constitutes their distinctive features. The mouldings of the arch are simple, the outer one being the more elaborate. The combined effect is beautiful. This doorway is similar in its form and adornment to the windows and arcades within the church. When seriousness of purpose was lost, all this wealth of decorative details became the abbettor of a fantastic and grotesque taste. The golden door of the Cathedral of Freiberg (Fig. 99) exhibits the extravagance to which the taste for excess-

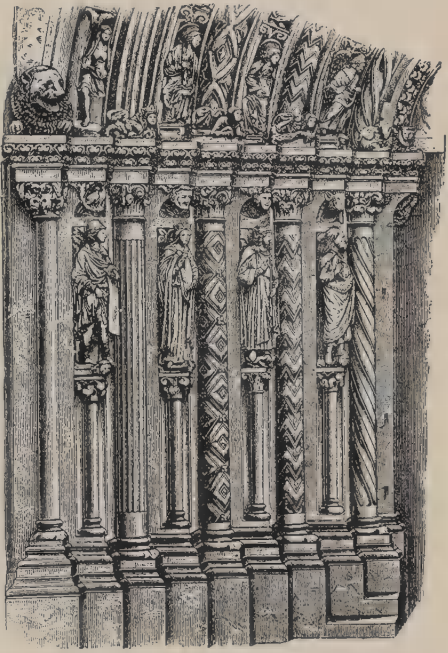
FIG. 98.



PORTAL AT HEILSBRONN.

ive embellishment led. The columns upon high pedestals, and supporting each an architrave, are executed with all the refinement belonging to the best examples. But there is incongruity in the grotesque forms above the heads of the saints, who are set between these columns; and the shapes above the architrave make a strange medley of mediæval sphinxes, saints, and lineal decoration. Christian symbolism is altogether foreign to this Romanesque mode of decoration; yet there is a symbolism, representing history and the sciences, especially astronomy, to which the mediæval mind was devoted.

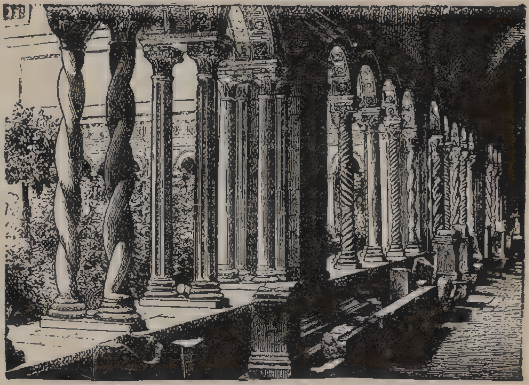
Fig. 99.



PORTAL OF CATHEDRAL AT FREIBURG.

§ **Cloisters.** The remarkable variety in the decorative column is nowhere viewed to better advantage than in the Cloisters of St. Paolo, at Rome. These cloisters are covered passages which surround a quadrangle. The court is planted with trees and flowers, and is separated by arcades from the cloisters. The columns of these arcades are twisted and fluted and wound with spiral cords, until the forms they assume make one doubt whether unpliable stone is the material out of which they are carved. Surrounded by all this princely splendor, ecclesiastics of all ranks walked, reading their prayers or meditating upon sacred themes, during the intervals of church service or in their hours of study. These clerics, who could own nothing by virtue of their vows, became, in truth, the possessors of luxurious surroundings, which earthly princes might vie to imitate, but must ever fail to surpass.

FIG. 100.



CLOISTER OF ST. PAOLO, ROME.

Chapter V.

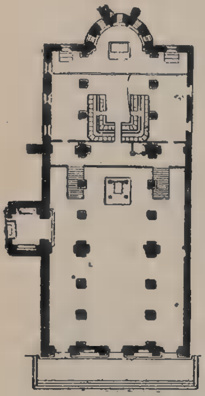
ROMANESQUE ARCHITECTURE IN EUROPE.

I. IN ITALY.

§ **Political Conditions.** Italy, in the 11th and 12th centuries, was part of the Holy German Empire. But the Italian possessions of the emperor were always scenes of strife between the imperial and papal parties. Italian traditions were cisalpine, not transalpine, and sovereigns of German extraction were simply endured. There were some divisions of Italy within which feudal lords ruled. Great cities, also, were in these Italian domains, with right to sustain armies for self-protection, and to wage war on their own account. These almost politically independent divisions corresponded with the ancient divisions of Italy; namely, Venetia, Tuscany, Lombardy, Campania, and the Sicilies. These provinces all belonged to the empire, yet each one was actuated by different aims, had diverse and long-standing traditions, and represented different types of civic life. They all, however, had a common religious faith, and the pope was its supreme head. When, therefore, the new architectural style, known as the Romanesque, began to be employed in Italy, these different divisions made modifications, giving varieties to the general Romanesque type so pronounced that these varieties have been called the Florentine, the Venetian, the Tuscan, and the Lombardic styles of the Romanesque.

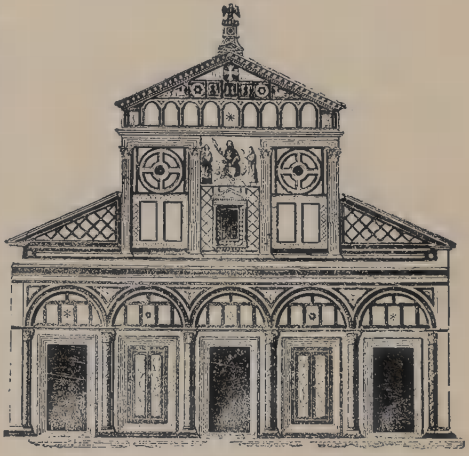
§ **Florentine Style.** The Church of St. Miniato is a fine example of the Florentine style. The ground-plan (Fig. 101) shows two piers on each side of the nave, which support transverse arches. The roof over the nave is an open timber roof, beautifully decorated with patterns of various colors. The columns and archivolts are marked by white and black bands of marble, a kind of decoration common to the Italian Romanesque. These features are all Romanesque; but the shape of the ground-plan is the same as that of the Latin basilica, and the elevation of the church, so far as its exterior is concerned, reminds one of the Constantine or Latin basilicas. It is, however, in the western façade, where the great peculiarity of the Florentine style (Fig. 102) becomes most conspicuous. Light and dark colored marbles are used to make inlaid work, producing a front which seems like a colossal mosaic, rich in columns and arches, graced with stellar forms, and beautified with circular, rectangular, and triangular figures. This mode of decoration required the painter's eye, not the sculptor's chisel.

FIG. 101.



PLAN ST. MINIATO.

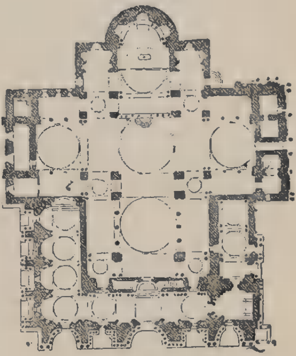
FIG. 102.



FAÇADE ST. MINIATO, FLORENCE.

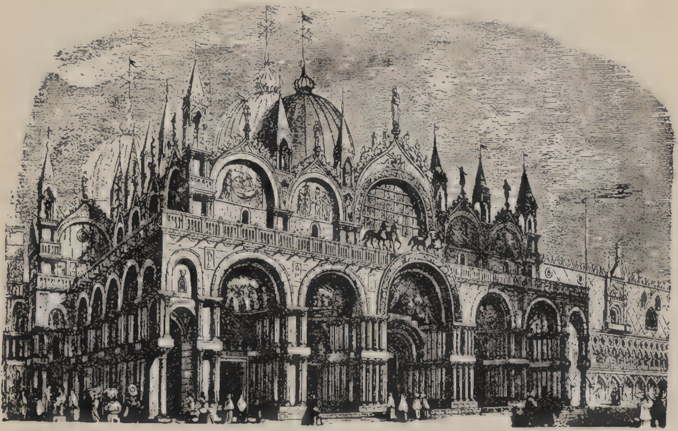
§ **Venetian Style.** The Church of St. Mark's, at Venice, exhibits the finest example in the Venetian style. In plan this church (Fig. 103) is a Greek cross, with a magnificent dome over the crossing and a smaller dome at each extremity of the equal arms of the cross. Great piers and powerful arches sustain the domes. Galleries are built between the piers. The floor is a mosaic; the pier-faces are incrusted with marbles, rich in color; the spandrels and domes are beautified with mosaic pictures. All this is Byzantine, and reminds one only of the superior magnificence of St. Sophia, at Constantinople. The great porch (Fig. 104) on the west and north side is Romanesque, omit-

FIG. 103.



PLAN OF ST. MARK'S.

FIG. 104.

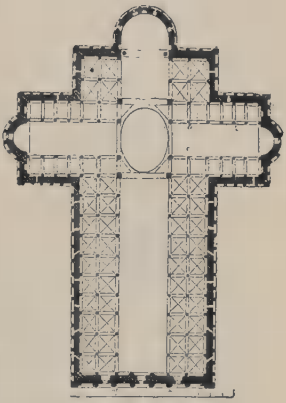


FAÇADE OF ST. MARK'S, VENICE.

ting, however, the attic-story above, whose pointed arches and pinnacles are a Gothic addition of the 14th century. The high archways in the porch and before the western doors of the church are not Byzantine, but Romanesque. The massive piers and arches on the north side of the porch need but to be placed in the nave in order to furnish striking resemblance to those of the Norman Romanesque nave. The decoration of these piers is Venetian, and consists in rows of engaged columns in stories, a style recalling the method of decorating flat surfaces, which was common in ancient Rome.

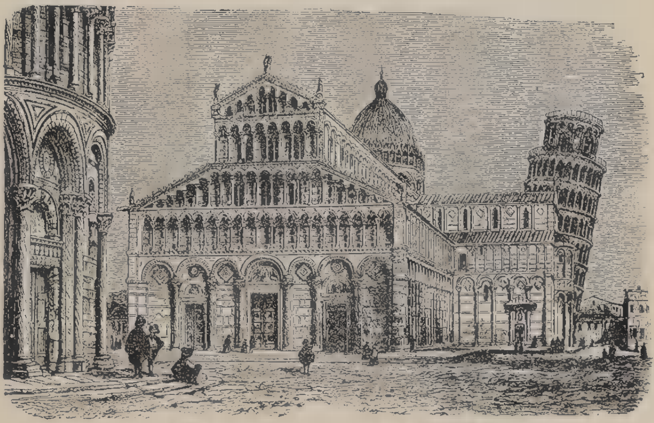
§ **Tuscan Style**. The group of buildings at Pisa, including the cathedral, the baptistery, and the campanile, were built when the Pisans were at the summit of their power, and when their victories brought countless wealth into their city. This mode of grouping ecclesiastical buildings was common during the period of the Latin Catholic Church; but the more common custom in the Germanic Church was to unite the baptistery to the nave as a chapel, and to build the campanile as a tower in connection with the church edifice. The plan of this Pisan Cathedral (Fig. 105) is cruciform, just such a plan as would be made by taking one of the five-aisled basilicas, which Constantine built, and adding transepts, then building above the crossing an elliptical dome. The only piers in the nave are the eight which support the dome. There are sixty-five ancient Greek and Roman columns in the nave and aisles, all taken by the Pisans as booty in war. One seems to be in a forest of beautiful classical columns as he walks up the nave of the church. The peculiar decoration of alternating light and dark marble, characteristic of the Italian Romanesque, is seen on the aisle-side of the arches and in the galleries. It is in the exterior (Fig. 106) that the chief peculiarity of the Tuscan style is seen. The westtern façade has in its lowest division a magnificent arcade, with engaged columns and arches, within three of whose arches are portals, where three ancient bronze gates once swung, these, also, being trophies of war. The upper divisions are four open galleries of different length, presenting a most brilliant array of arches and columns. The sides are ornamented with decorative arcades or with pilasters and horizontal entablature. The arcade, as a decorative feature, is splendidly carried out in both the baptistery and the campanile. The influence of this group of buildings is traceable in the churches of Lucca and other cities of Tuscany.

FIG. 105.



PLAN OF CATHEDRAL OF PISA.

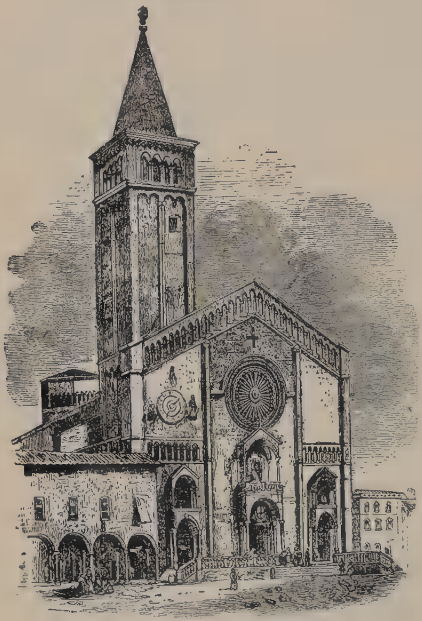
FIG. 106.



FAÇADE OF CATHEDRAL OF PISA.

§ **Lombard Style.** Of all the Italian styles the Lombard presents most completely the typical interior of a Romanesque church. The nave, as well as the aisles, is vaulted, and the piers of the nave have mouldings corresponding to the arches and ribs of the vault. The church of this style is a vaulted basilica with transepts. The distinguishing characteristics of the Lombard style are seen in the façade. There are no high central portion and lower side-wings as in the façade of the Romanesque church generally; but the whole church is placed under one gable-roof, and the divisions, answering to nave and aisles, are marked off on the western façade by pilaster-buttresses, extending to the eaves. The cathedral at Piacenza (Fig. 107) will exhibit this style. The western façade has also a highly ornate character, which is a characteristic of the Lombard style. There are arcades under the eaves, and arcades above the doorways of the side-aisle, and a great rose-window above the central portal. A projecting porch is before each entrance, with first and second story.

FIG. 107.



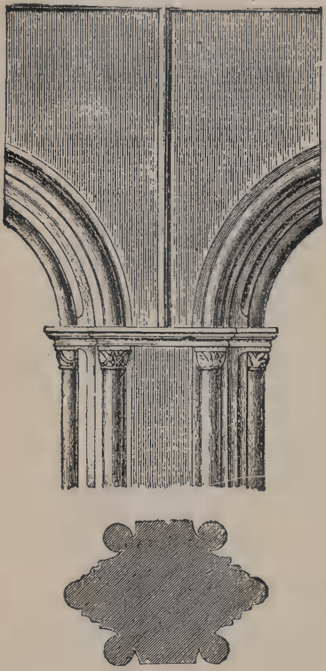
CATHEDRAL OF PIACENZA.

II. IN GERMANY.

§ **The Empire and the Papacy.** More than half the lands of Germany had been granted to Churchmen, on condition of feudal obedience. Hence bishops were theoretically subject to the sovereign will. The Council of the Lateran, in the 12th century, dared to forbid clergymen receiving benefices from laymen or owing allegiance to them. To such colossal power had the papacy attained. The gauntlet to the civil power was thrown down first by Pope Gregory VIII. Henry IV deposed Gregory by the Diet at Worms. The Council at Rome excommunicated the emperor. But papal excommunication had more terror than imperial deposition. Therefore, Henry traversed the wildest passes of the Alps in midwinter, and stood three days barefoot and fasting in the snow at the gate of the Castle of Canossa, begging the removal of the papal sentence. A divided allegiance between the civil and ecclesiastical authorities was the disturbing spirit of the times. Centuries had taught obedience to the civil authority; the demand of obedience to the papal power was new in the Western World. The Saxons figure prominently in the empire during this period. They were the most recent converts to Christianity. They were often converted by force, and as often returned to their ancient faith. They, for a time, were fickle papists. The Rhenish provinces in this period were governed by powerful bishop-princes, who owed their fiefs to the emperor. These ecclesiastics had great influence in the conduct of the affairs of the realm, and they accepted slowly, and only by ecclesiastical compulsion, the papal theory. Varieties in the Romanesque style, as developed in Germany, are chiefly traceable to the localities of the Saxon lands and the Rhine, where there was greater or less independence of Rome.

§ **The German Saxon Style.** This church had usually transepts and low piers between the nave and aisles. The intercolumniation of the piers was determined by the breadth of the nave. Sometimes columns alternated with piers, giving variety to the appearance of the nave. This construction was the same as the colonnades of the Latin basilica, except that piers, not columns, supported the arches, and so the whole Saxon construction was more massive. The simple, bold outlines of the ornamentation of these piers are observable in Fig. 108. Engaged columns correspond to the inner and outer mouldings of the archivolt; a single bold moulding divides, perpendicularly, the spandrel. And above the arch is a horizontal moulding of the same kind. The western front had a low vestibule, with an arcade-gallery above, opening into the nave. The flat roof for nave and aisles was usual. The chief Romanesque features in the interior were the pier and its intercolumniation, and the apsidal chapels in the transepts, opposite the aisles. Western, and often Eastern towers, were common to the exterior, and gave their peculiar attraction to the edifice. The later buildings of this style assumed the ornamental

FIG. 108.

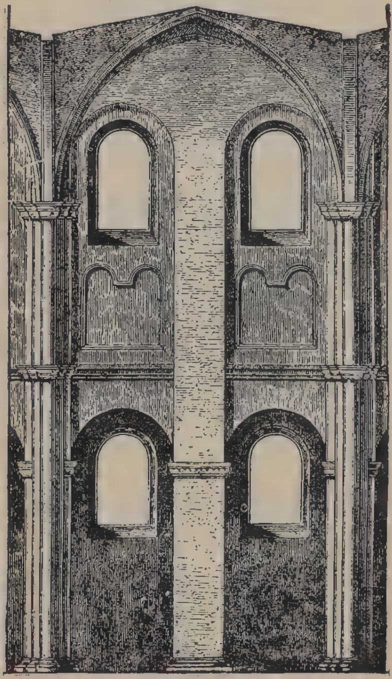


PIER AND ARCH IN CONVENT CHURCH, AT BUERGELIN, NEAR JENA.

features of other styles, and lost thereby that stern simplicity which accorded most harmoniously with the low and heavy arches of the nave and the great weight of wall which they sustained.

§ **The German Norman Style.** The Germans developed an architectural style in which the vaulted nave and the construction of towers at the four corners of the church were the most striking features. The ground-plan was sometimes without transepts, then the towers stood at each corner of the rectangular plan. At other times the towers were in the angles of eastern and western transepts. The vaulted ceiling and the towers were suggestions obtained from the Norman French; but a new disposition of towers and new proportions made an independent German style. That remarkable series of churches along the Rhine and in the Rhine provinces, as exemplified in the cathedrals of Laach, Spires, Mayence, and Worms, present these marked variations from the Norman Romanesque churches of other lands, and the style may appropriately be called the German-Norman Romanesque. The wooden roof is occasionally found here as in Italy; but great piers in the nave, not columns, give it support. The use of piers in the nave associates this style with the Saxon; but the greater height of the nave distinguishes often these styles. It is, however, in the vaulted nave that a great and distinguishing character of the German-Norman Romanesque comes full into view, and it is this characteristic which associates the edifices with the Norman type. A bay of the nave, taken from the cathedral at Worms, will make clear the construction. There are principal piers, richly moulded at the sides of this bay, from which are sprung longitudinal and transverse arches. Each vault is, therefore, sustained by supports such as were employed to carry the dome of St. Sophia. The supporting piers (Fig. 109) are not square, like the dome-piers in the Byzantine church, but are clustered columns. A secondary pier is built between these principal ones; then the bay of the nave is constructed. It is tripartite, consisting of a high nave-arch, within which the windows of the outer wall are in full view; a solid wall above these arches, which in other churches becomes broken into gallery-arcades; and thirdly, the clerestory. The cross and diagonal ribs of the vaults received prominent mouldings. The whole structure of the nave was cumbersome; but the greater height, the somber shaped piers, the mighty arches, brightened with the abundant light from the unobstructed side-windows and those of the clerestory, produced an effect new and impressive, even before these cumbersome elements of structure were formed into beauty by the genius of the artist.

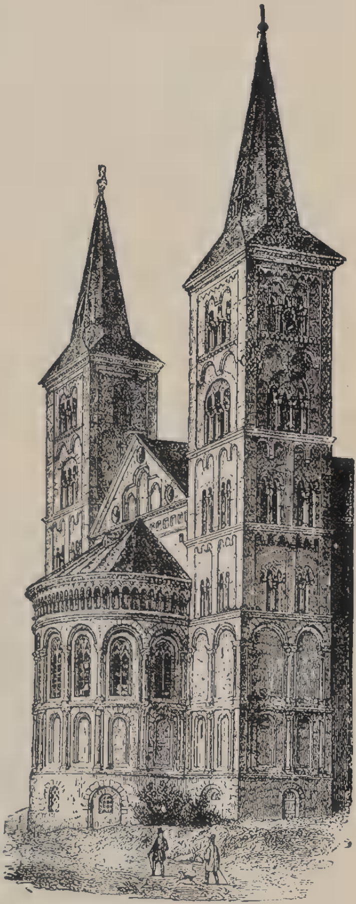
FIG. 109.



BAY OF CATHEDRAL AT WORMS.

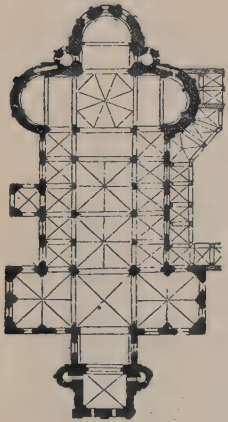
Fig. 110 is the choir of the minster at Bonn. The tall, square towers, with the tapering polygonal roof at their summits, and the graceful circular apse, are immediately noticeable. The arcade-paneling of the façade and the open arcade under the eaves of the apse combine to make a façade which is most beautifully embellished. The western front sometimes had a polygonal projection between the towers for the entrance. This style has indeed resemblance to the Norman French through these towers; but the whole edifice is carried out in such pleasing symmetry, and ornamented with almost classic exactness of taste in the series of churches wherein the German-Norman style reached its highest perfection, that the style may be claimed as a national development, having received perhaps only the typical forms and the structural principles from abroad; for the Germans modified typical forms so masterly that their churches, compared with the prototypes, are like cultivated flowers, whose beauty far outshines the same flowers when wild.

FIG. 110.



MINSTER AT BONN.

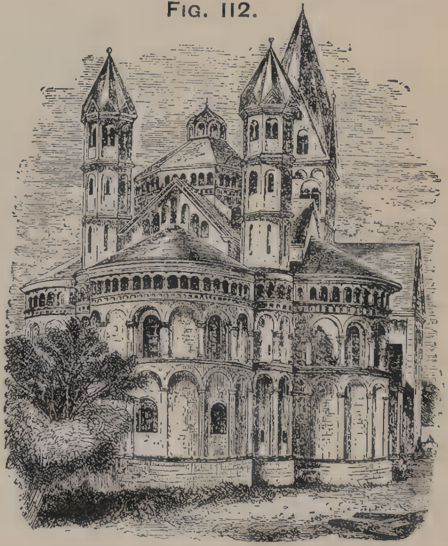
FIG. III.



PLAN OF APOSTLES' CHURCH.

§ **German Romanesque Style.** It is not difficult to separate a group of churches found in Germany, France, and Italy, which have similar characteristics, and are Romanesque, but which are distinct, as a variety, from the Norman style. These churches in Germany are appropriately called the German Romanesque. The dome (Fig. 111) above the crossing was the ruling thought in this variety. This feature is Byzantine. Great arches on piers supported the dome, and the thrusts were counterposed by the transepts and choir, all terminating with circular apses. A long nave with side-aisles was joined on the western side of the crossing. A vestibule (Fig. 112) was often built to the nave and aisle-portion as a transept, thus giving two transepts, one at the eastern and the other at the western extremity of the church. Towers and turrets, both eastern and western, were often added.

FIG. 112.



CHOIR OF APOSTLES' CHURCH, COLOGNE.

The exterior was decorated with the arcades and open galleries, and the whole edifice was a new variety, having, indeed, no less pleasing charms than the more imposing German Norman style. A group of these churches are in Cologne, and are named St. Mary in the Capital, Apostles' Church, and Great St. Martin's.

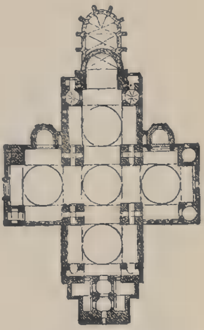
III. IN FRANCE.

§ **The Sovereign Power.** The establishment of cities with municipal privileges was a Roman institution. Fiefs, under the dominion of a feudal lord, was a Germanic custom. France was the first among the governments of Europe to accomplish the adjustment of these two opposing systems. Her king, Louis VI, protected the leagues of the common people against the barons, especially, by establishing communes, or towns with free charters. He was led in this movement by the great Churchman, Abbot Suger. The successors of this king increased the number of communal charters. This movement was abetted by those many cities in Southern France, which had municipal privileges granted them by the Romans, and which they claimed as peculiar rights even in the twelfth century. These free cities chose their own magistrates and armed their own citizens for common defense. The growth of the sovereign's power, because he favored free cities in his domains, subordinated the claims of the barons. Feudal customs gave way. The reign of Louis IX (1226–1270) is a new era in French history, an era in which the regular and equal action of law began to replace the turbulent misrule of the feudal ages. The great Churchmen of France were the chief allies of the sovereign in this contest between the factions in his kingdom. The contention, therefore, between the king of France and the Pope never assumed such violent character as the strife between papal claims and the royal prerogatives assumed in the German Empire and in England. And, furthermore, France, in its language and spirit, had agreement with Rome, and so the papacy was not antagonistic to the dominant thoughts of her people.

§ **Varieties in Style.** There are three varieties of the Romanesque style which are distinguishable in France. A variety in which the influence of the Latin basilica is seen upon the Romanesque features, and which may be called the French Romanesque style; a variety which has likeness to the German Norman style, probably was the prototype of this style, and called the Norman French style; and a variety which is altogether Byzantine in its features, and so rightly named the Franco-Byzantine style. It is thus seen that the Romanesque style in the Italian and German provinces of the German Empire, and in the Kingdom of France, embraced a struggle between the structural principles of the Latin basilica and the Byzantine basilica. The nave of the Latin basilica was built by means of columns, with arches or architrave upon them, whereon was placed the walls of the nave; the nave of the Byzantine basilica was built by means of piers and arches upon them, while between the piers were placed beautiful arcades and galleries, and above them a dome. The Norman style in France made its appearance as a structural compromise between these two great systems.

§ **The Franco-Byzantine Style.** Central and Southern France were richest in classic remains, and retained longest commercial relations with Venice and the East. There are, as a consequence, in these regions churches which reflect classic traditions and the Byzantine architecture. The Church of St. Front, at Perigueux (Fig. 113)

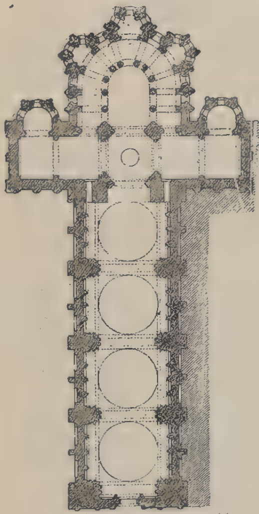
FIG. 113.



PLAN ST. FRONT, AT PERIGUEUX.

is an imitation of St. Mark, at Venice. The ground-plan is a Greek cross; its roofing is accomplished through five domes. The dome piers have cross-passages through them, and the arches upon them are pointed. The interior is plain as compared with the original. The principal value of this church to the student of ecclesiastical architecture is to demonstrate the widespread influence of the Byzantine style when the Romanesque was being perfected. The Cathedral of Cahors is also another witness of the same fact, for its prototype is the Church of St. Irene, at Constantinople.

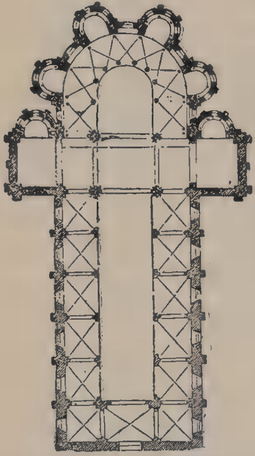
FIG. 114.



ABBEY CHURCH AT FRONTEVRAULT.

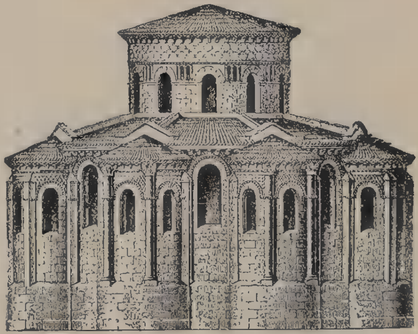
§ **French Romanesque.** There were two distinct varieties of Romanesque churches, constructed under the influences of the Latin and Byzantine basilicas. Both church varieties had the Latin cross as the ground-plan. The first variety is shown by the Abbey Church of Frontevrault (Fig. 114) The church has a dome or cupola above the crossing, in the Byzantine manner, and the choir, chapels, and transepts buttress it. The choir-aisle has opening into it three most beautiful chapels. The nave has a series of domes for the roofing, and the piers for its domes were built in the walls of the church. There were no aisles in these churches. The peculiar beauty of the plan of the church becomes instantly apparent; for the prominent transepts, because of the narrow nave, give to the exterior the boldest outline to its cruciform shape. This variety, therefore, is composed of a Romanesque choir and transepts, and a Romanesque nave, but the nave has the domical roofs of the Byzantine style. The second variety (Fig. 115) has, likewise, the dome above the crossing, and this determined the application of the structural principles which Byzantine art introduced. A series of chapels about the choir-aisle and the transepts gave the buttressing to this central structure, as in the Church at Frontevrault (*vide* Fig. 114); but the nave, with aisles vaulted in the Romanesque style, gave the western counterpoise. The whole vaulting of the church nave is cylindrical. Two modes were employed to resist the side-thrust of the cylindrical vault above the nave: one was to meet the side-thrust by high

FIG. 115.



PLAN N. D. DU PORT.

FIG. 116.

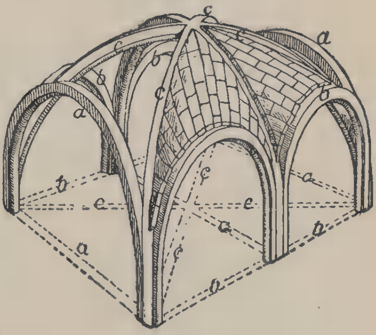


NOTRE DAME DU PORT, CLEREMONT.

half-cylinder vaults over the side-aisles; the other, by transverse cylinder vaults above the side-aisles. The exterior of the Church of Notre Dame du Port, at Cleremont (Fig. 116), shows a church in the French Romanesque style, beautified by the common Romanesque mode of decoration. These churches call to mind the German Romanesque churches, such as Apostles' Church, at Cologne (*vide* Fig. 112). The national taste is clearly defined in the exteriors; but the structural principles in both are the same. The problem with the German and the French was to buttress a domical structure above the crossing. It was solved in each nation alike; namely, by choir-chapels, transepts, and nave, built under the constructive principles of the Byzantine style.

§ **Norman French Style.** The groin-vault above the bays of the nave was as important an innovation for the development of the perfected Romanesque style as the dome with pendentives was for the Byzantine style. It is generally conceded that the Normans of France first employed this mode of vaulting for the nave, and as early as the close of the eleventh century. The groin-vault was then constructed either with four or six compartments, although later, four compartments in the vault became generally in vogue. The six-parted vault (Fig. 117) had four piers at the corners of a bay in the nave, and between them two subordinate piers. Transverse arches (Fig 117, *a*) were

FIG. 117.

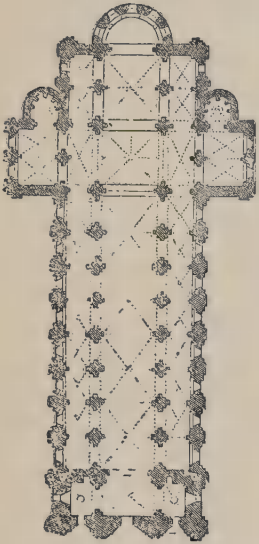


SIX-PARTED VAULT.

sprung over the aisles to opposite piers; then longitudinal arches were built from pier to pier (*b*), making two arches along the nave in one of its square bays. The framework for the vault was completed by two diagonal arches (*c*), extending from one corner-pier of the bay to its diagonally opposite corner-pier. The groined compartments, six in number, were then filled in. The problem of poising a groin-vault high in the air was thus solved by the Normans. It proved of the highest importance for the perfecting of the Romanesque style and the development of the Gothic.

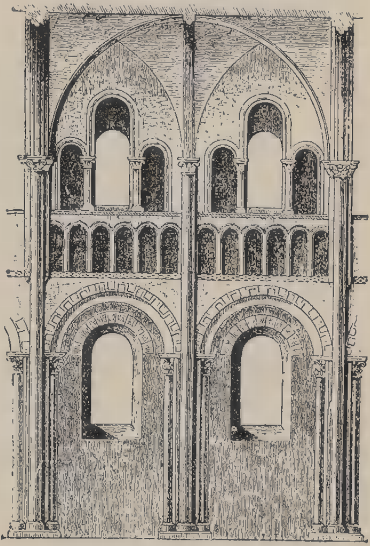
The ground-plan of the Norman church was the Latin cross (Fig. 118). A cupola was often over the crossing, buttressed round by the elevation of the transepts, choir, and nave. The choir had aisles along the sides, and had a circular termination. Circular apses were on the eastern sides of the transepts. Towers were built at the western front. The exterior aspect of this church was most striking and imposing. Its early appearance gave it a commanding influence upon subsequent Romanesque churches. The interior of the church was no less remarkable, and exerted no less influence, than the exterior. The expression of the organic relationship of its parts was quite completely attained. The piers (Fig. 119) which carried the great transverse arches were signaled out by massive mouldings on the transverse arches. Then the tripartite division in the bay of the nave was effected, so that the lofty nave-arch let light more freely in from the windows of the walls, the triforium gave its graceful arcade to beautify the nave, and the clerestory above poured down into the church larger volumes of light. The Norman French style accomplished a more perfect organic structure within; it secured a most impressive elevation of the nave with a roofing that seemed the natural culmination to the arrangement of parts in the nave; it gave, what was of great importance, better

FIG. 118.



PLAN OF ST. ETIENNE.

FIG. 119.



NAVE ST. ETIENNE, CAEN.

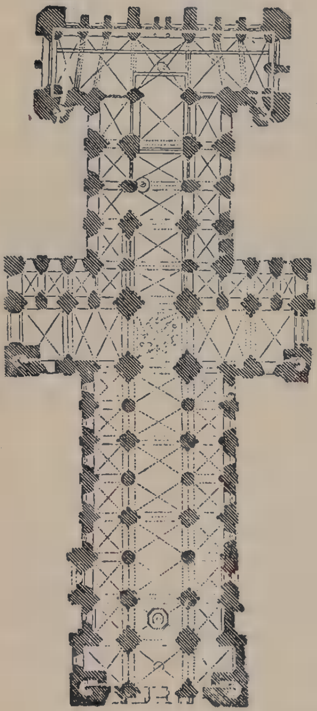
light in the church. The ornamentation was essentially the same as that found in the Romanesque churches of the time.

IV. IN ENGLAND.

§ **The Norman Conquest.** William conquered England, when Harold, the last of the Saxon kings, was de-
66, A.D. feated at the Battle of Hastings. The Norman king and his nobles established the feudal customs of France and swept away the simple manners of the Saxon. The whole land was changed. The Norman soldiers were made feudal chiefs, and everywhere played the tyrants over the conquered. Foreign Churchmen became the abbots and bishops in England. There was no change

in the religion, but change in the religious teachers. The civil and ecclesiastical creatures of the Norman conqueror riveted the chains tighter and tighter upon the defeated Saxons. Such was the social condition when the Norman architecture was introduced into England. The early Saxon style gave way to the Norman. The Norman style in the churches increased the bitterness of the bondage of the Saxons. Yet, when there arose adjustment, and the Saxons became willing subjects to the established order, having obtained concessions which gave them justice and equal rights, then the Norman style received an enrichment such as not even in France or in Germany the Norman style ever attained. There are, then, three distinct varieties, or better, two; for the first style had an early and a later period.

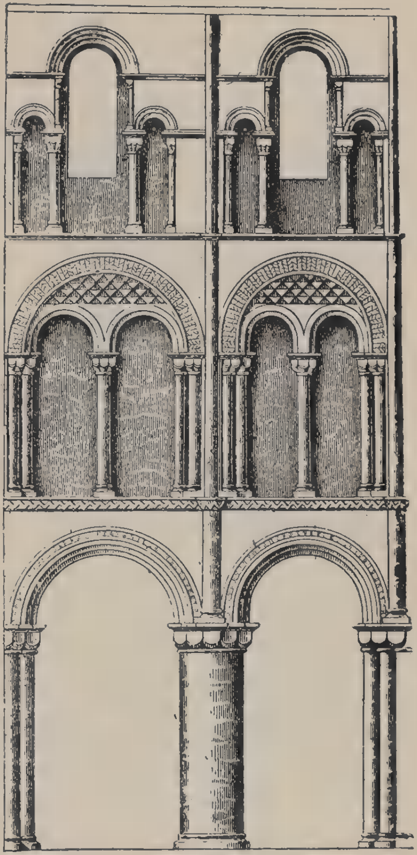
FIG. 120.



PLAN OF CATHEDRAL AT DURHAM.

§ **Anglo-Norman Style.** These churches (Fig. 120) differed through some important modifications in the ground-plan from the continental. There was no apsidal termination at the east end. The square completed the choir on the east. The churches were longer and narrower. The width of the transept was greater than the nave, and an aisle was cut off on the east of the transepts in order to make the Latin cross by means of the transepts crossing the choir and nave. At the crossing a tower was raised upon massive piers. There were principal and subordinate piers along the nave, and the principal entrance was usually lateral. The form of the cross within was more like the Gothic type, which is long and narrow. The bay of the nave, however, adheres closely to the type of the Norman French. Three compartments (Fig. 121) are in the nave; and the clerestory window, like that in the Norman French, is connected with a tripartite arcade opening on the interior. The Anglo-Norman gives preference to short round pillars of great diameter instead of the moulded pier; yet where the pier is moulded, it has the simple half-round. The capitals are like small half-spheres, placed round the top of the pier. The col-

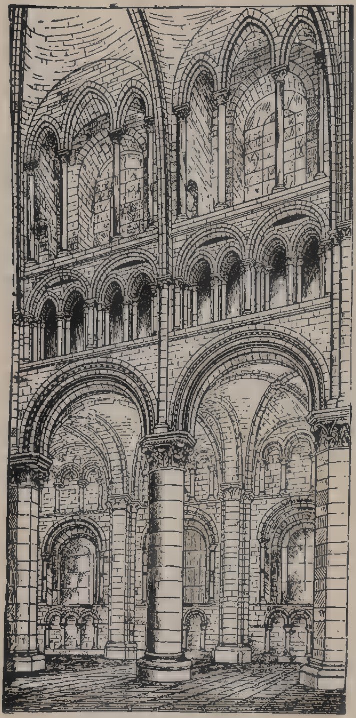
FIG. 121.



BAYS FROM PETERBORO CATHEDRAL.

umns of the triforium and clerestory are similar in form to the piers. The architecture is heavy and massive, and, owing to its great length, the church seems very low. The great thickness of the walls led to deeply recessed openings, all of which became ultimately most richly decorated. It would seem that this substantal nave, with its powerful piers and arches, and its thick wall, was designed to meet the greater thrusts of the cross-vaulting. Yet the abbeys and cathedrals of England had at first the flat wooden ceilings. The side-aisles were vaulted, and they were very low, so that when one stepped from them into the nave there seemed, by contrast, much greater height to the ceiling above. The decorated Anglo-Norman cathedrals (Fig. 122) have in them a beauty all their own, unique, unlike that of other edifices of the Romanesque style. And it may be doubted whether the impression of the Gothic cathedral is more churchly, although the wonders of Gothic art were never attained in the Romanesque style. The eye sees at every glance evidences of strength. A small

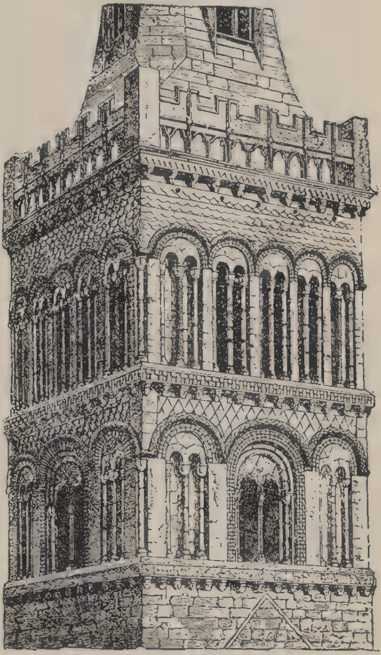
FIG. 122.



NAVE OF CANTERBURY CATHEDRAL.

moulding has its support on the summit of a pier; you follow it upwards and it runs along the rib of the nave-vault. This moulding has no strength, but it draws the eye to the masonry in the gallery and clerestory, which support the roofing arch, and is as thick as the supporting pier and as wide as the width of the aisle. The thickness of the massive side-wall of the church is known by the splayed windows of the aisle and the windows high up in the clerestory. There is beauty, also, in this house of God, not the colored glories of mosaics, nor the sweet faces of saintly women, robed as queens or as angels, not such beauty as the artist's brush paints on walls; but such beauty as the sculptor works in stone. The sculptured forms were simple and few. Yet light and shade set them all into bold relief; for each separate ornament was given clear outline. Deservedly the decorated Anglo-Norman style is the pride of the English people. It may be deficient in grace, but it has the beauty of strength, simplicity, and truthfulness. The towers of this Anglo-Norman style are replete with charms. Fig. 123 gives one; but the parapet

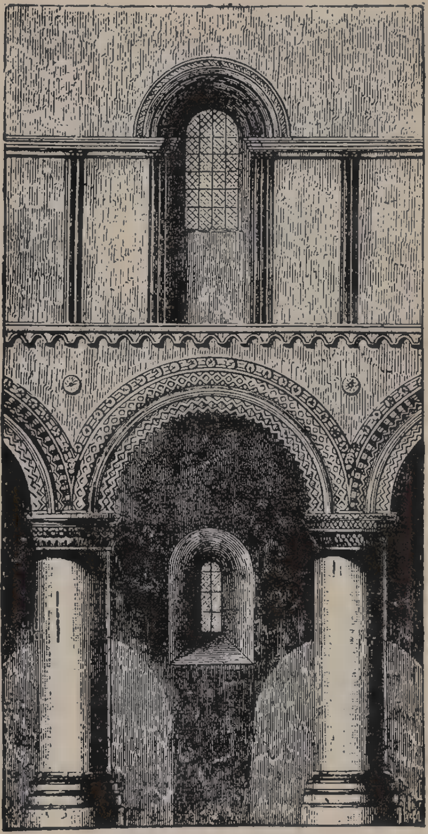
Fig. 123.



TOWER OF CASTOR CHURCH, NORTHAMPTONSHIRE.

and spire seem later additions. It is simple in form, having the square as its plan. As it rises, it gains in beauty. Ornament begins as the height of the nave is reached; the first story above the nave is enriched with arcades, having beautifully moulded and carved hoods above them; and the diamond adorns the rest of the story. The string course is rich in its corbels and in the squares which beautify its face. The upper story is more elaborately embellished with ornament. The secret of this architecture is strength; its moral is that strength assumes beauty as it rises in elevation above the earth.

FIG. 124.



NAVE AT STONEHENGE.

§ **The Anglo-Saxon Style.** There are edifices which were built at this period which show a marked contrast with this Norman style. Yet one common feature is present: both styles are most solid in construction. The variety, shown in Fig. 124 has these characteristics. The columns are short and thick; they support, with their arches, the thick nave-wall above, in which there is only a clerestory. Horizontal and perpendicular mouldings panel the walls. The building recalls those which the Saxons in France raised. The nave has an appearance like the Latin basilica. The simplicity of the ornament, the strength of the structure, harmonize with all the great elements of the Saxon character. It is not difficult to find explanation of these two varieties appearing at the same time. The bishoprics and abbeys were given by the Norman conquerors to foreign Churchmen. These came from the dominion of France, but were chosen from those who were friendliest to the conquerors; some from Normandy, some from Saxony. These latter were better acquainted with the Saxon character, and could be most helpful in counseling submission to the Norman. These foreign bishops built according to the style to which they were accustomed. Hence, in England there are churches which may be called the Anglo-Saxon Style. These churches were erected with features such as the Saxons loved, and from them were banished the more obtrusive Norman characteristics.

V. IN SPAIN.

§ **Political Condition.** Spain was overrun in the 9th and 10th centuries by the Moors, and brought under subjection. Mohammedan proselytism touched, with its blighting hand, the Christian religion. The Moorish dominion in Spain received its first great blow when the Christians captured Toledo in the 11th century. Christian civilization now supplanted the Mohammedan in the northern provinces, and with its advance began the appearance of the Romanesque architecture, which at this time had spread over Europe.

§ **Architectural Type.** Those characteristics, which are French, were present in these new cathedrals which were built in Spain during the 11th and 12th centuries. Whether the use of the dome with pendentives was introduced from Southern France or came from places where Byzantine influences were more dominant, is but a matter of conjecture. The church at Compostella is Romanesque, having a choir with an ambulatory about it, lined with apsidal chapels. The vault over the nave, like the French style, was cylindrical, while the cross-vault was used over the aisles. The portals were especially rich in their carvings. When the Norman princes conquered the Sicilies, they built Christian churches in form like those in which they were accustomed to worship, but ornamented them with Moslem arches and arabesques. On the contrary, the Christians who reconquered Spain, at first banished from their churches which they built every form and ornament which could remind them of the bitterly hated Moors.

§ **Résumé.** The Romanesque church received modifications as it was builded in the midst of different nations. The type, however, was one, and its construction was followed either by the method of the Latin basilica, with columns supporting a continuous wall, or of the Byzantine basilica, where high piers and arches held the roof, and between these piers arcades, or even solid masonry, were set in. The Romanesque church was in plan a cross. This symbol was the all-controlling one in the church. The decoration of this style was in revolt to that of the past; the ancient temples furnished no parallels to the foliage forms in the Romanesque style; and, indeed, not foliage, but geometrical and crystal forms, were the most common. The church was built at first by the clergy, but soon the princes of the people and their sovereigns were important in all matters ecclesiastical. Strife existed between the rival powers, that of the Church and State, or that of the Pope and the sovereign. The adjustment was heralded in the changes wrought in the exterior of the church buildings. The choir lost none of its splendor, but rather its cupola, or tower above the crossing, gave increased attraction to this portion of the edifice, which had, from the first, received most of the architect's attention. But towers at the west end, as if princely guardians of the church, indicated the great change within the body politic. The Romanesque church is an edifice enshrining the form of the Roman cross, symbol of the mission of the clergy; noble towers stand before the cross, declaring that princes and rulers, who are, according to the New Testament Scriptures, ordained of God with authority, should protect the rights of all worshipers from every encroachment.

Table of Romanesque Churches.

I. IN FRANCE.

PLACE.	EDIFICE.	PART.	CENTURY.
A.	EARLY	PERIOD.	
Arles.	St. Trophime.	Cloister.	XI.
Auxerre.	St. John.	Tower.	XII.
Bourges.	Cathedral of.	West portal.	XII.
Clermont.	Notre Dame du Port.	Apse.	XI.
	Ditto.	S. Portal and Exterior Details.	XI.
	Ditto.	E. and S. View.	XI.
Lyon.	Church of Ainy.	W. Façade.	XI–XIII.
Portiers.	Ch. St. Hilaire.	Apse.	XI.
	N. D. la Grande.		XI.
Rosheim.	Church at.	Interior.	XI.
St. Lo.	Ch. Santa Croix.	Interior.	XI.
Toulouse.	St. Sernin.	Exterior View, N. W.	X–XV.
B.	PERFECTED	PERIOD.	
Arles.	St. Trophime.	Portal.	XII.
Bayeux.	Cathedral of	Bas-relief of Nave.	XII.
	Ditto.	Interior.	XII.
Bordeaux.	Ch. St. Croix.	W. Façade.	XII.
Chartres.	N. D.	Interior.	XII–XIII.
Laon.	Cath. of.	Second Gallery.	XII.
Senlis.	Cath. of.	Portal.	XII.
C.	TRANSITIONAL	PERIOD.	
Autun.	Cath. of.	S. E. View.	XII–XVI.
Arles.	St. Trophime.	Cloister.	XII–XIII.
Bayeux.	Cath. of.	W. Façade.	XII–XV.
Caen.	St. Etienne.	Interior.	XI.
Laon.	St. Martin's.	W. Portal.	XII–XIV.
Lonvier.	Ch. of.	Interior.	XII.
Nouvion.	Ch. of.	E. and S. View.	XII.
Noyen.	N. D.	N. E View.	XIII.
Paris.	St. Denis.	Interior.	XIII.
Rheims.	St. Remy.	Choir.	XIII.
Souvigny.	Ch. of.	W. Façade.	XIII.
Vezelay.	St. Madeleine.	W. Façade.	XII–XIII.

II. IN ITALY.

PLACE.	EDIFICE.	PART.	CENTURY.
A.	EARLY	PERIOD.	
Milan.	St. Ambrose.	Tribune.	XI.
Parma.	Cath. of.	W. Portal.	XI–XII.
Pavia.	St. Michele.	W. Façade.	XI.
Pisa.	Cath. of.	Interior.	XI.
	Baptistery of.	Interior.	XI–XII.
Sienna.	Cath. of.	Interior.	XIII.
Venice.	St. Marc.	Interior.	X–XI.
Verone.	Cath. of.	W. Portal.	XI–XII.
	St. Zenon.	Parts of Portal.	XII.

II. IN ITALY.—Continued.

PLACE.	EDIFICE.	PART.	CENTURY.
B.	PERFECTED	PERIOD.	
Genoa.	St. Laurient.	W. Portal.	XII.
Lacques.	St. Martin.	Gallery of W. Façade.	XII–XIII.
Lingiers.	Cath. of.	W. Façade.	XII.
Pisa.	Campanile.		XII.
	Bastistery.	Fountain.	XIII.
Rosheim.	Ch. of.	S. W. View.	XII.
Trent.	Cath. of.	E. View.	XIII.
Verone.	St. Zenon.	Portal and S. W. View.	XII.
C.	TRANSITIONAL	PERIOD.	
Osti.	Cath. of Madeleine.	Façade.	XI–XV.
Padone.	Cath. of.	W. Façade.	XI–XIII.
Sienne.	Cath. of.	Interior.	XIII.
		S. W. View.	XIII–XIV.
III. IN GERMANY.			
A.	EARLY	PERIOD.	
Andernach.	Church of.	E. S. View.	XI–XII.
Bamberg.	Cath. of.	Interior.	XI–XII.
Bonn.	St. Florentine.	Interior.	X–XII.
Freiberg.	N. D. of.	View, S. E.	XI–XVI.
Mayence.	Cath. of.	W. View.	XI–XIII.
Spires.	Cath. of.	W. Façade.	XI.
B.	PERFECTED	PERIOD.	
Basil.	Cathedral.		XII.
Brunswick.	Cathedral.		XII.
Coblentz.	Church of.		XII.
Hildersheim.	St. Godehard.		XII.
	St. Michael.		XII.
Johannisberg.	Church of.		XII.
Lubeck.	Church of.		XII.
Rosheim.	Church of.		XII.
Worms.	Cathedral.		XII.
Zurich.	Cathedral.		XII.
C.	TRANSITIONAL	PERIOD.	
Cologne.	St. Gereon.	N. E. View.	XII–XIII.
Neuss.	Ch. of St. Quintin.	West Façade.	XII.
Worms.	Cathedral.	S. Portal.	XII.
Zurich.	Cathedral.	Lateral View.	XII.
IV. IN ENGLAND.			
A.	EARLY	PERIOD.	
Carlisle.	Cathedral.	Nave and Transepts.	End of XI.
Durham.	Cathedral.		“
Gloucester.	Cathedral.	Nave.	“
Hereford.	Cathedral	N. and Choir.	“
Norwich.	Cathedral.		“
Rochester.	Cathedral.	Nave and W. Front.	“

IV. IN ENGLAND.—Continued.

PLACE.	EDIFICE.	PART.	CENTURY.
B.	PERFECTED AND	TRANSITIONAL.	
Canterbury.	Cathedral.	Choir.	XII.
Chichester.	Cathedral.		XII.
Ely.	Cathedral.	Nave.	XII.
Hereford.	Cathedral.	Nave and Choir.	End of XI.
Norwich.	Cathedral.		XII.
Peterboro.	Cathedral.		XII.
Waltham.	Abbey.		XII.

N. B.—1. The parts indicated specially illustrate the period.

2. The dates given are approximate, usually being the time of commencement of the edifice.

3. Of course, the list is only partial, being designed to point out the quite contemporaneous appearance of Romanesque cathedrals and churches.

Chapter VI.

GOTHIC STYLE. 1225-1500.

§ **Various Designations.** There is great difference of opinion as to the proper designation of that architectural style which finds expression in all edifices, military, civil, and religious, from the beginning of the thirteenth century. The constructive employment exclusively of the pointed arch characterizes the system. There are those, therefore, who call it the Pointed Style. This designation, apart from its accurate description of the dominant constructive form in this new style of architecture, has the advantage of awakening no national prejudice. The question as to whether the Germans, or the English, or the French have best right to name the style, is not raised when the designation, Pointed Architecture, is used. Germans are pardonable when they seek to name it the German Style, basing their claim on the wonderful perfection of the edifices, and also the number, which people of Germanic stock erected. But, with equal right, it might be called the English Style, since on English soil cathedrals rise scarcely surpassed by any of those reared on the Continent. And it is conceded by both German and English that a pointed style of architecture appeared first in the North of France in the second half of the twelfth century. Therefore it may fairly be urged that the new architecture is the French Style. Several writers have proposed a name for the style which expresses, likewise, no suggestion that could arouse national antipathies. All Christian architecture, until the Gothic appeared, presented obligations to the great systems developed by the Greek and the Roman. But the Pointed style is independent, showing profounder constructive ability, and a series of edifices before which the most magnificent achievements of the Pagan world in architecture must be acknowledged inferior. It was within the pale of the Christian Church that this style was created and developed into faultless perfection. Hence, some claim that it is preeminently Christian architecture, and seek to designate it by this name. But the name Gothic Architecture has successfully held its place against all competitors.

§ **Witness to Civil Freedom.** The eleventh and twelfth centuries beheld the realization of Hildebrand's fondest hope—a vast ecclesiastical organization under St. Peter's successor, the vicegerent of Christ on earth. The Romanesque architecture is the monument of this triumph of the clergy. The most loyal Papists were cisalpine. But beyond the Alps, in transalpine regions, some bishops dreamed of establishing episcopal sees, which were little less than ecclesiastical feudal kingdoms, giving only a formal allegiance to Rome. This was a menace to the Pope. Beyond the Alps, also, the princes and kings struggled to be free from ecclesiastical domination. In the midst of these contending forces, the prelate against the Pope, the civil rulers against the successor of St. Peter, the Gothic style of architecture arose. The term Gothic was given to it in derision by the Italians; but this despised architecture conquered prejudice through its noble forms and great beauty, and in its course of triumph scaled the Alps, and planted Gothic cathedrals at Milan and Vienna, and in other principal cities of Italy.

§ **The Architecture of the Laity.** Gothic architecture is a new type; a new creative power brought it into existence. Yet not the priesthood, as in Romanesque architecture, were the recipients of this new creative spirit, and then the promoters of this new architecture. The laity originated and built the Gothic style. There was deep, serious purpose in the social revolution of the thirteenth century. It was not an effort to cast off the obligations of the Christian religion. Love of the Papal Catholic Church was as deep and absorbing as love of one's city. But the bonds of its priesthood, irritating at every turn in life, meddling in all of the people's affairs, neglectful of the proper and sacred duties of the servants of the Church, were the evils against which the people set themselves in revolution. The might of the people was manifested in the changes which they effected, through their princes or governors, in the claims of the Pope. Then, too, the magnificent constructive power among the people became manifest through cathedrals which its own architects designed and builded. Fraternities or guilds of Masons were formed among the laity, to whom the principles of the new architectural type were confided. These guilds were established in all great cities, and were devoted to the extension of the Pointed style.

§ **The New Triumphal Arch.** It was a most momentous revolution when the feudal lord in his castle, as the governing power, gave place to the walled city, wherein the people recognized civil authority and received the benefit of laws. Education was no longer confined to the priesthood; but the people became possessors of culture. And then religious life in the Papal Church had its best exemplars in the laity. Christian architecture was from the first strikingly symbolical. The whole church, in the days of persecution, was called the nave. When Constantine gave imperial recognition to the triumph of Christianity over paganism, the new importance of the Christian religion was signalized by the triumphal arch before the choir; and within this arch the religious and civil rulers sat. The establishment of the supremacy of the Pope was the victory of the clergy over sovereign powers. Thereafter the choir was alone for the clergy. The crossing separated the choir from the nave, wherein the people and their civil rulers attended upon worship. The Romanesque church was a Christian symbol in being cruciform, was also the sign, through the crossing, of the separation of the clergy from the laity; and the lesser number of the clergy led to the adoption of the Latin cross, which gave the choir less length than the nave. The choir was the most splendid part of the edifice, and often above the crossing, the cupola or dome rose, adding new charms to the choir.

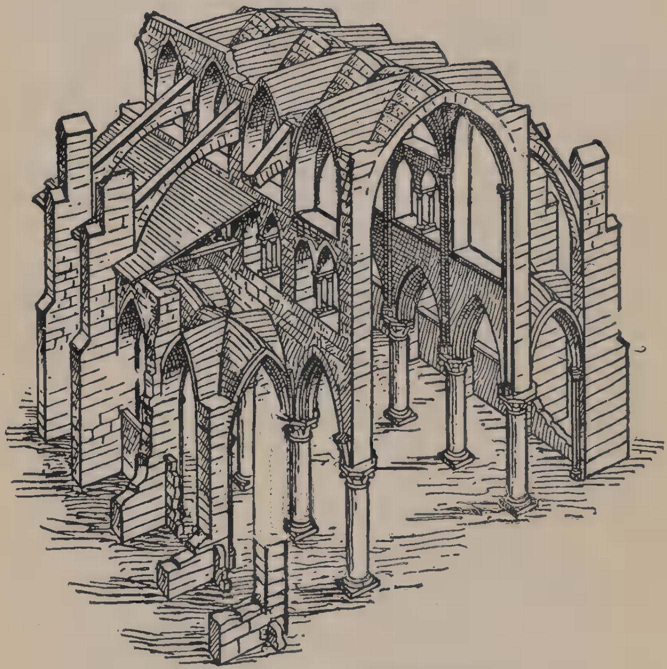
The time came when careful attention was directed towards beautifying the western façade, the entrance of the people and their rulers to the house of God. Attractive decorative features above and about the portals, and lofty towers on each side of the central entrance began to appear, when the people, as a civil body, under authorities not ecclesiastical, began to have larger place in the popular mind. Then came the day of the triumph of the civil rulers and the people over the Pope and his priests. Gothic architecture is the memorial of this triumph. And the triumphal arch, which the people built, was placed at the entrance of the church, being a triple portal, the largest opening before the nave. And most wonderful is this arch in beauty, daring, and grace: in beauty, because of its manifold blending of exquisite forms and ornament; in daring, because of the amazing height of its spires; in grace, because of the harmony and charm of all its parts.

A. CONSTRUCTION OF THE GOTHIC CHURCH.

§ **Prior Structural Methods.** The Latin basilica was a central structure, consisting of a nave and a choir, which was built first upon columns and architrave, then upon columns and arches, as the support for the superimposed walls. This central structure had a side counterpoise to the thrusts in the shed-roofs which covered the aisles. The Byzantine church was a central structure, consisting of high piers with arches, upon which a dome was poised. Walls, meeting each other at right angles, were built around this central structure, and at some distance from the piers, making side-naves; and from the summit of the walls to the central structure vaulted roofs were thrown, which acted as buttresses. The Romanesque church is a central cruciform structure, resting its roof on either a wall, supported by colonnades, as in the Latin basilica, or upon arches resting upon lofty piers, as in the Byzantine church. The roofs of both arms of the cross are gable-roofs, and of the same height. This central cruciform structure of the Romanesque church has walls built upon the sides of the long arm, forming side-aisles, and from their summit there is thrown shed-roofs to the nave-walls, and these roofs buttress them. The Gothic architects had these edifices as teachers in the constructive principles of the new style, nor did they ignore instruction, but skillfully availed themselves of the help which earlier architecture proffered.

§ **The Gothic Structure.** It, too, has a central portion, built upon piers, and constituting the nave, crossing, and choir, the three parts which make the church proper. There are side-aisles and transepts, which, likewise, are built upon piers. In this respect the edifice is different in its structure from that of the Romanesque. Fig. 125 will make clear the Gothic construction. This engraving presents the nave and the side-aisles. Observe the nave rests upon columns, supporting square piers. A moulding is seen along the face of the pier, extending to the transverse rib. Each step in the filling-in between piers is traceable. The piers of the nave and the aisle-piers with buttresses, the groined vault, the shed-roof, the flying buttress, are to be noticed. Such is the skeleton of the Gothic edifice.

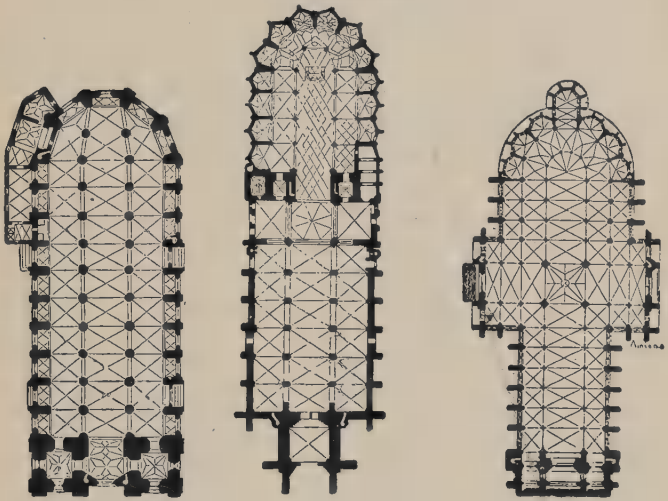
FIG. 125.



THE GOTHIC FRAME-WORK.

§ **The Ground-plan.** The simplest form of the Gothic church (Fig. 126, *a*) consisted of a choir for the officiating and worshiping clergy, and a nave for the worshiping people. There were side-aisles along the choir and nave. Sometimes chapels opened into them.

FIG. 126.



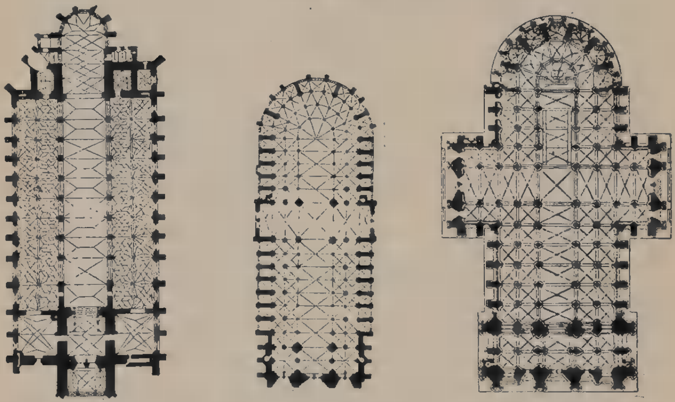
a. NOTRE DAME, MUNICH.

b. MINSTER OF FREIBERG.

c. CATHEDRAL OF AMIENS.

This plan is a nave-church, like the ancient basilicas. Splendid length in the nave and the choir was the first requisite of the Gothic style. It is to be observed that there is also a change in the intercolumniation of the piers. The distance between two adjacent piers scarcely exceeds half the breadth of the nave, scarcely ever two-thirds the breadth of the nave. Hence, the floor-divisions of the nave are no longer squares, as in the Romanesque style, but are oblong. The Gothic church is more generally cruciform (Fig. 126, *b*). The parts of the church then were choir, transepts, crossing, and nave. These had the same elevation, and their roofing was cruciform. But the exterior ground form was not necessarily so. The cross, made by the transepts of a Gothic church, was the Gothic cross. The arms met near the center, and so resembled the Greek cross; but its chief characteristic is great length as compared with its breadth. The most perfect Gothic form is found in those churches (Fig. 127, *c*) which are cruciform, both within and without. The church, then, is symbolic throughout, a beautiful cross of most imposing proportions, within which men worship; and there are walks, having chapels, along the sides of this cross, where worshipers may kneel in prayer or sit in religious meditation. The magnificent, almost colossal conceptions of these Gothic builders become evident by a thoughtful consideration of the three plans in Fig. 127. Notice that,

FIG. 127.



a. CATHEDRAL OF ULM.

b. NOTRE DAME, PARIS.

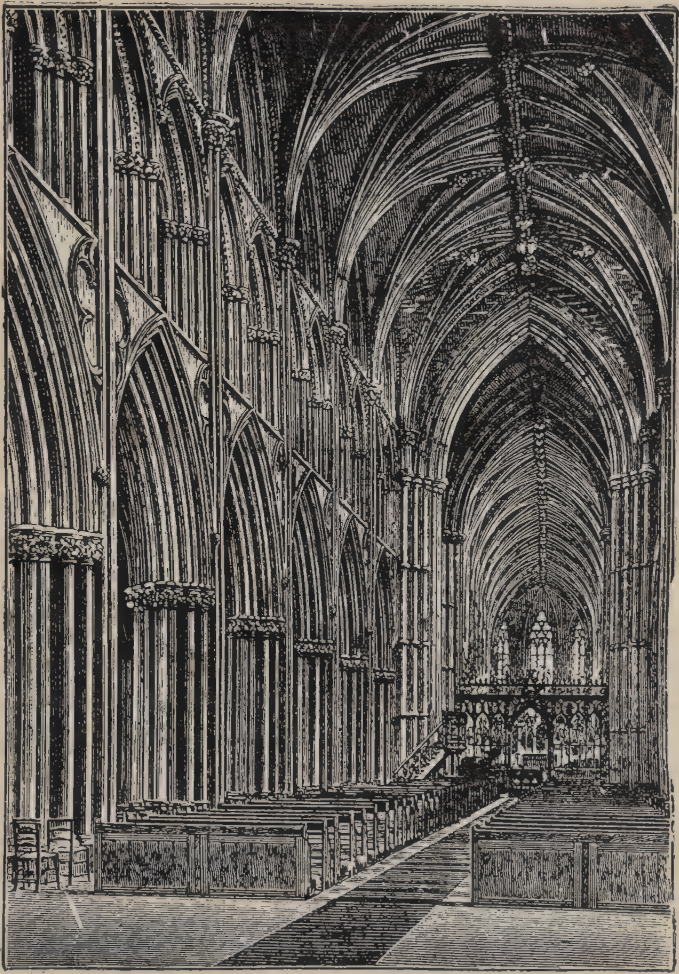
c. CATHEDRAL OF COLOGNE.

in form, each has its counterpart in Fig. 126; but the difference is, that here the aisles are double aisles. The building, therefore, assumes grander proportions. The interior bewilders by its multitude of columns. It is a veritable forest of branching piers, making noble vistas both in the nave and aisle. The Italians called this architecture Gothic, the architecture of barbarians; but, walking among the columned splendors of a Gothic church, astonishing by their number as well as charming by their beauty, one feels emotions kindred to those which come when, as an appreciative observer, he goes over the tree-lined paths of a forest, seeing arches of leafy branches overhead and long pathways before him, checkered with light and shade, and terminating in openings of glowing sunshine.

§ **Gothic Nave.** The Gothic church is only understood in its full import and seen in its greatest splendor when one stands within the western portal, and looks along the nave towards its eastern extremity. The long vista, and the beauty of the choir-windows, as the sunlight falls upon the colored glass; the noble height of the nave, formed by the branching of columns and ornamented with the matchless art of sculptors who wrought under the inspiration of a new-born era,—all these objects conspire to create in the mind of the observer a vivid impression of the genius and the intellectual resources of men who could fashion stone into such peerless forms, and blend colors into such lovely combinations as greet his eyes and awaken his boundless admiration. In the Romanesque church, which the clergy designed and builded, one stood at the crossing, in front of the choir, and from there the full greatness and beauty of the church became apparent. But in the Gothic church, which the people designed and builded, the observer stood in the portal, beneath the people's triumphal arch, and beheld the expression of that genius with which God had endowed his people. A view of the nave and choir of Lincoln Cathedral (Fig. 128) will enable us better to understand the reason why the Gothic nave is peerless among architectural structures. It is such a view as one would have when standing at the western portal. The nave-piers and arches reach to comparatively great height, with no ornament but the flowers in the capitals of the clustered columns and the quatrefoil in the spandrels. The triforium has similar ornamentation in the capitals of its clustered columns, and, in addition, the archivolts are beautifully decorated. The clerestory is beautified, but its most striking ornament is the cluster of rib-mouldings, spreading gracefully out, and making the high vault of the nave. The eye wanders down the nave and along the splendors of the choir. And the eastern windows of the choir, if their colors be touched with the sunlight, seem, to the observer, the jeweled portals to unspeakable splendors beyond. One feels that worship in this church is on God's great highway, with his servants, the pastor and the flock, standing in awe before the visible splendors of God. The talismanic thought in this nave is, that "ye are one in access unto the Father."

§ **Western Façade with Central Tower.** The Gothic edifice is remarkable, not alone for the grandeur of its nave, but also for the majestic beauty of its towers. One type of Gothic church, as judged from without, has a central tower in the western front. The portal, through which the people enter into the church, consists of a single pointed and deeply-recessed doorway. It is an archway through a tower of imposing height and graceful form. Over one of the ancient ways of Rome it would be called a triumphal arch, having, like that of Titus, but a single passage way.

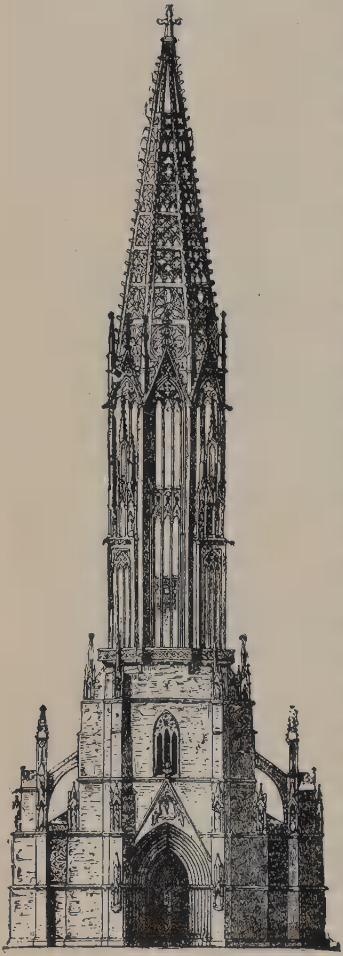
FIG. 128.



NAVE AND CHOIR, LINCOLN CATHEDRAL.

Freiberg Cathedral (Fig. 129) presents this type. The tower is the foundation for the octagonal spire, which below is a prism with eight sides, above a pyramid with eight faces. The genius of the artist transformed these sides and faces. Each side was a frame-work, inclosing tracery like that in the windows of the church. Gables, with crockets and the cruciform flower, complete each side, and at the angles were placed pinnacles. The faces of the pyramid are perforated with the quatrefoil and the trefoil. The top of the spire is a magnificent cruciform flower. Art, perhaps, never attained so signal a triumph as in the perfected Gothic spire. Grace of form, daring height, strength, united to an apparently delicate and fragile structure—yes, such strength as defied the angriest of storms; all these charms are combined in the Gothic spire in most beautiful harmony. And this spired tower is the Gothic archway through which the people enter into the house of God.

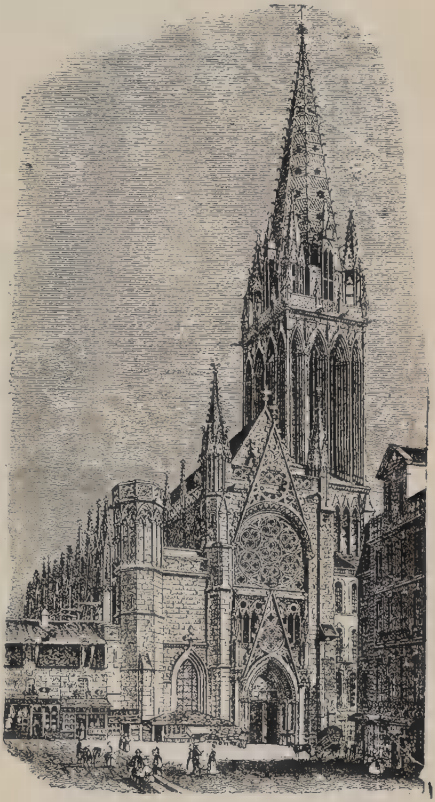
FIG. 129.



FAÇADE OF FREIBERG CATHEDRAL.

§ **Western Façade with Corner Tower.** The Gothic architects were a class of the people. These architects had love in their hearts for their work; had also knowledge of what other men had wrought in the domain of architecture; therefore, their works, inspired by love and perfected by knowledge, never cease to have instruction for all beholders. The western façade, with a corner tower (Fig. 130), is a second type. The portal portion is a separate structure, joined to the nave and the tower. This separation from the nave is evident from the decorative gable above the rose-window; for behind it is the roof-gable of the nave. There is a noticeable lack of harmony in the three features of this western façade. The south aisle of the church has its western termination in the great spire; the north aisle has a windowed wall before it

FIG. 130.

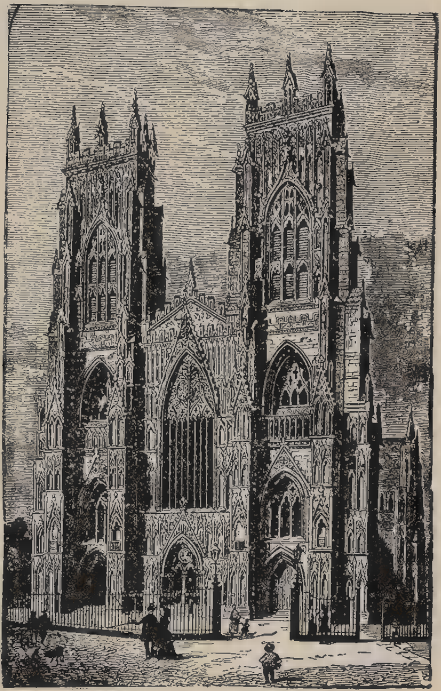


ST. PIERRE, AT CAEN.

and a small tower at the corner. The central portion before the nave, has buttresses at its sides, corresponding to the tower and the small north turret. This façade is, therefore, three dissimilar constructions, united into a kind of unity. Often the three parts were made to blend harmoniously; and then the façade, with a corner tower, became very attractive; and always, the slender and powerful spire, with its sculptured beauty and dizzy height, made the observer feel that these Gothic architects had learned the secret by which stone had lost both its hardness and its weight.

§ **Western Façade with Two Towers.** The perfected Gothic portal is simply the Triumphal Arch of Constantine (*vide* Fig. 41), with towers above the side archways. This two-towered western façade is the most magnificent feature of Gothic architecture. Each of the modern nations, except the Italian, loved this Gothic front. The western façade of the Cathedral of York (Fig. 131) well represents this type. The central portal is deeply recessed, and its receding arches and its beveled door-jambs are adorned with sculpture. Sometimes the head of the portal's arch was filled with geometrical forms, but usually with a sculptured group representing our Lord in some one of the many scenes in which he "manifested forth his glory." These scenes were fields of action for men, as when they took the Christ and crucified him, or else places of apocalypse, as when our Lord rose from the tomb. The Gothic portal records in stone these fundamental truths of the Christian Church, and, in so doing, follows the example set in the portal of the Romanesque church. Panel-work, formed by arcades with the pointed arch, decorates the flat surfaces of this western façade. There was above the main portal either a splendid pointed window, or else a magnificent rose-window, through whose painted glasses the sunlight streamed, in colored bands, along the length of the nave. Each tower was completed in harmony with the center. The side doorways were smaller, but recessed and enriched with sculpture. A pointed window above the door flashed light, broken up into brilliant colors, down the aisles or along the galleries. Nor was the upper face of the tower neglected; for often a beautiful pointed window adorned this part. The architect marshaled all his genius to make splendid this western façade of the Gothic cathedral. And it stands, for beauty and grace and wondrous height, an architectural feat unsurpassed.

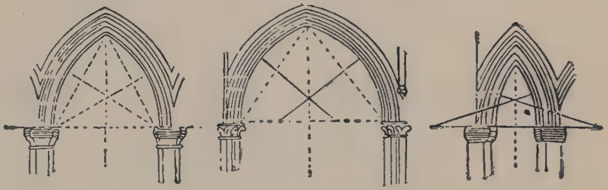
FIG. 131.



CATHEDRAL OF YORK.

§ **Pointed Arch.** A single constructive system is prevalent in all truly Gothic architecture. The pointed arch is the essential element of this system, and is the secret of its overpowering effects. It is, therefore, of highest importance to understand the formation of this arch as well as its constructive use. There are three forms of the pointed arch (Fig. 132) employed in Gothic architecture: The equilateral, in which the nave-piers are the centers for the circles, of which the sides of the arch are the arcs. When the centers are within the points of support, the pointed arch is oblique; when these centers are without the points of support, the arch is acute. The oblique arch is nearest in shape to the round arch The pointed arch, with the same intercolumniation of the piers, had greater height than the circular arch. When, therefore, Gothic architects adopted it, the oblong, instead of the square, determined the subdivisions of the nave. Also, that remarkable altitude was attained for the nave-walls by means of the pointed arch, which has ever been regarded as one of the most imposing features of the Gothic style. There was, further, most decided mechanical advantages arising from the employment of the pointed arch. As a support, the arch brought the superimposed weight nearer the vertical line than the round arch. It was this peculiarity which led to the use of the Gothic slender buttress. Early Gothic gave preference to the acutely pointed arch. The angle and vertical line is the secret of the ornamentation, the pointed arch the secret of construction in a Gothic edifice.

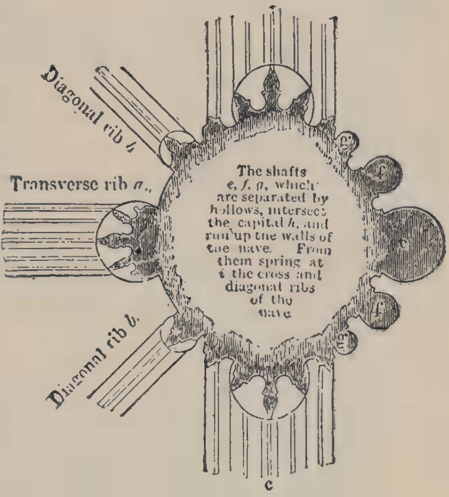
FIG. 132.



FORMS OF THE POINTED ARCH.

§ **Cross-section of a Pier.** The rich mouldings of the Gothic pier (Fig. 133) are really servants to the superimposed constructions. Therefore, the Germans call them servants. The longitudinal and the transverse arches have mouldings equal in size and of the same shape. Between them are the mouldings for the diagonal arches. The pier is a solid, massive center, surrounded by these various mouldings. Only in the richer character of mouldings do these piers differ from those belonging to the Perfected Romanesque style. The structural principle in both is the same.

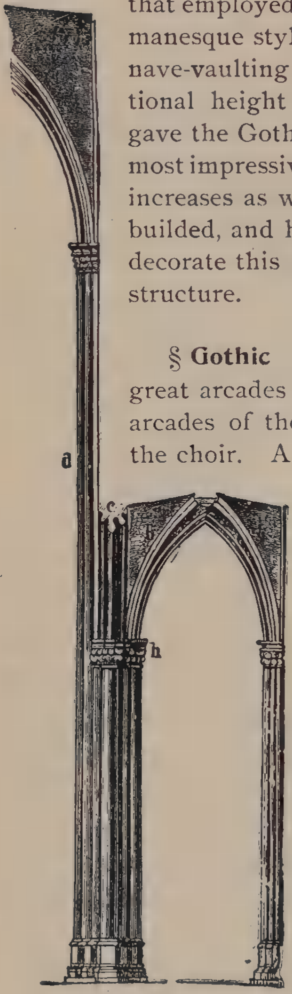
FIG. 133.


Diagonal rib b
Transverse rib a.,
The shafts e, f, g, which are separated by hollows, intersect the capital h, and run up the walls of the nave. From them spring at i the cross and diagonal ribs of the nave
g
f
e
f
g
Diagonal rib b.
c

A PIER'S CROSS-SECTION.

§ **Pier and Its Arches.** The construction of the pier is now to be considered. There is a center of solid masonry, around which are builded vaulting shafts. The capital of the vaulting shaft for the transverse arch over the nave is raised high above the capitals of the other vaulting shafts. The arches of the nave-arcades have their shafts the same height as the shaft of the aisle. The vaulting shaft upon the side wall corresponds with its opposite shaft upon the pier. So far as the central mass and its moulding through vaulting shafts are concerned,

Fig. 134.



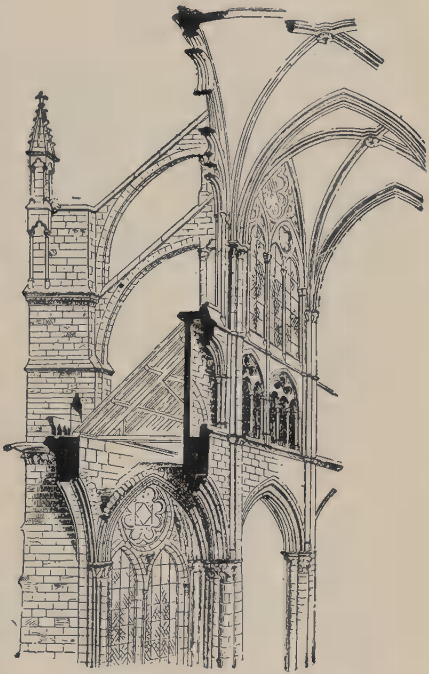
NAVE AND AISLE CONSTRUCTION, CATHEDRAL AT HALBERSTADT.

this pier-formation differs in no respect from that employed in the vaulted naves of the Romanesque style. But the great length of the nave-vaulting shaft (Fig. 134), and the additional height secured by the pointed arch, gave the Gothic nave a distinct, and new, and most impressive character; and our admiration increases as we discern how compactly all is builded, and how richly these moulded shafts decorate this essential support of the Gothic structure.

§ **Gothic Constructive System.** The great arcades of the Gothic church were the arcades of the nave, of the transepts, and of the choir. A system of pointed arches upon tall, slender shafts (Fig. 135) supported the roofs above the nave-arcades. The aisle-arcades were of lesser height, and assisted in solving the problem of how to make this central structure stable. Its longitudinal thrusts were counterpoised mainly by the western front and the choir at the east. The tranverse thrusts were met by the aisle-piers, buttresses, and flying buttresses to the nave-piers. New static laws were therefore involved in this Gothic structure, revolutionizing, by obedience to them, all architectural construction.

§ **The Nave-bay and Vault.** The filling-in between two adjacent nave-piers made the bay of the nave. It was divided (Fig. 135), like the bay of the Romanesque style, into the nave-arch, the triforium, and the clerestory. The greatest freedom is shown in the treatment of these three parts. Sometimes frieze separated the lower from the upper division; sometimes the triforium and the clerestory seemed to be but a single whole, a kind of magnificent window, set above the nave-arch. Especially is this impression made in those cathedrals where the triforium is not a gallery, but transparent. Greatest variety is given to the mouldings of the nave-piers—now they seem to be but columns placed above columns, marking very clearly the several divisions of the bay; now the mouldings seem part of one tall shaft, supporting the arches of the nave, of the triforium, and of the clerestory. In the latter case the nave seemed a structure all harmonious, as if one principle of growth dominated, changing all it appropriated into a

FIG. 135.



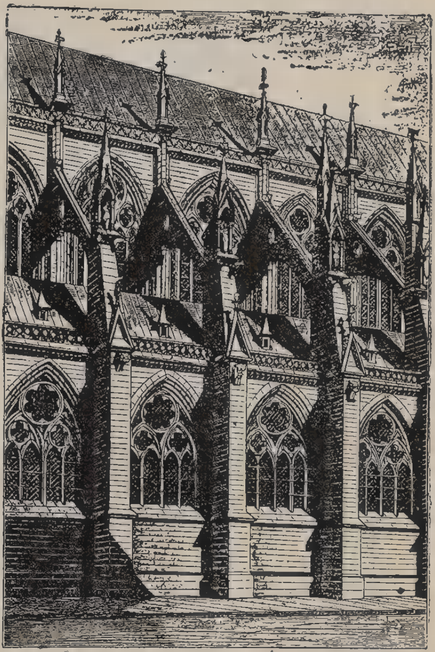
TRANSVERSE SECTION, CATHEDRAL OF AMIENS.

consistent organism. The mullions, like columns, supported arches, trefoils, quatrefoils, multifoils, making the beautiful window-traceries of the clerestory, or the graceful arcades of the triforium. Upon the mouldings of the nave-piers were set the transverse and diagonal ribs, on which was constructed the nave-vault. These ribs were richly moulded in the perfected style, and so the difference in the mouldings of the ribs, as well as the mouldings of the piers and the tracery of the windows, become most helpful in determining the period to which the edifice belongs.

§ **The Aisle-bay and the Buttresses.** The aisle-pier (Fig. 135) was a moulded pier, corresponding to the moulded pier of the nave. There were transverse and diagonal ribs, springing from these mouldings, for the vaulting of the aisle. The windows between these aisle-piers were beautified with tracery similar to the tracery in the clerestory. Above the aisle-vaulting is seen the shed-roof, which is not only a covering for the aisle, but a buttress for the nave. The clerestory was strengthened by a device as daring as it was graceful and beautiful. The aisle-pier was first strengthened by a buttress in order to meet better the thrusts of the aisle-vault. These buttresses were extended upward, and from this upper part flying buttresses were sprung to the nave. The charm of the Gothic cathedral depends as much upon the buttresses and their decoration as upon any other feature which greets the eye.

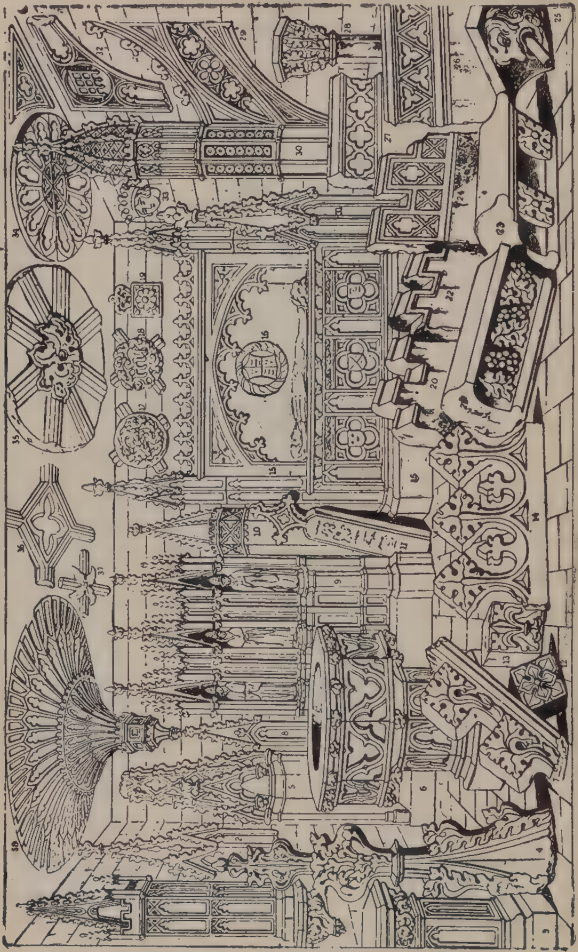
§ **Exterior of the Aisle and Nave.** The buttress in its lower portion (Fig. 136) had water-tables corresponding to the wall-parts between them. Water-spouts, called gargoyles, often of fanciful forms, were built in the buttress at the height of the roof's eave. The buttress was then narrowed as it was builded upward. Often a tabernacle finial surmounted the buttress, sheltering within its niche the effigy of some saint. A finial was set above the place where was the impact of the flying buttress upon the nave-wall. These beautiful finials, each having its summit adorned with the cruciform flower, made beautiful ornaments along the eaves of the nave. The windows of the aisle, and above them the windows of the nave, beautified the spaces between the wall-buttresses. Slender mullions, supporting foliated arch-heads, made the window-tracery. The exterior walls of the Gothic church are unique in all architecture. Necessary supports were transformed, given graceful forms and clothed with beauty. The openings through which light entered the edifice challenged attention, because it seemed as if the building was constructed in order to present as little obstruction to the sunlight as it was possible. The shrine of pagan temples abode in darkness. But the highest

Fig. 136.



SIDE VIEW, STRASBURG CATHEDRAL.

FIG. 137.



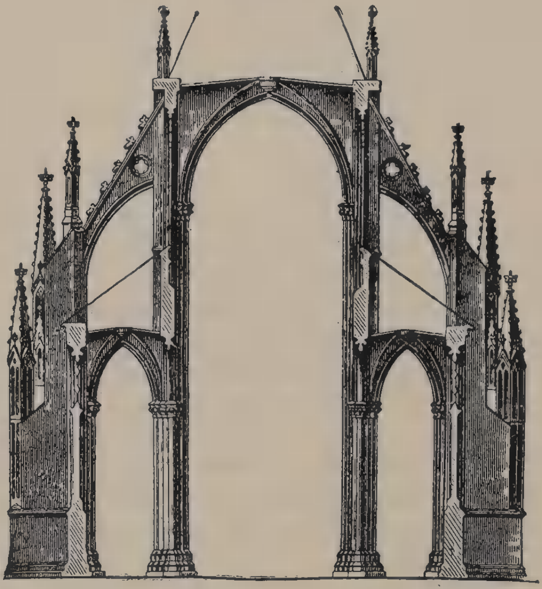
GOTHIC ORNAMENTATION.

type of the Christian church seemed to threaten the stability of the structure in order that light might be poured in upon the choir and the nave, the altar-place and the great highway before the altar. These Gothic architects, laymen of the Church, loved the light, and sought to flood their edifice with its glory. The marvel of Gothic genius is, that it made the useful beautiful, that it transformed mere supports into ornaments, that it empowered the beauty within to permeate, with its own charms, the outer walls of the church.

§ **Gothic Ornamentation.** This Gothic structure, wherein all was compactly builded together, must needs have appropriate adornment. The Gothic architects employed geometrical ornamentations, yet they seem entirely different from the cordate forms common to classical architecture, and different from the lace-like patterns of the Byzantine style. It was, however, in the sculptured forms and shapes (Fig. 137) that Gothic architecture presented almost entire originality. It abandoned the classical forms of the egg and pearl beading; it rejected the nail-heads, the cable, the chain, the lozenge, and other shapes of the Romanesque style, and returned to the botanical forms of nature. The forest trees, the vines and plants of the field, yes, even vegetable forms of the garden, are sculptured in the archivolts, frieze, and capitals of the Gothic. Indeed, at every step in this Gothic construction, man paused to beautify his handiwork. He loved his toil, and its inspiring power called forth all his endowments. These men knew, in their hearts, that they were engaged in the greatest architectural construction of all ages, and that coming centuries would utter their praises and be inspired by the work of their hands. Hence, they borrowed their forms from the Architect of the universe, and built with patience and love.

§ **Pointed Architecture.** A tranverse section of the Gothic church (Fig. 138) will make apparent the aptness of the expression Pointed Architecture to designate Gothic peculiarities. The nave is completed by a pointed arch; so, too, are the aisles. The buttress, the aisle-pier, the nave-pier, are each terminated by a finial; a cross-section of the gable-roof is a point. Classical architecture is horizontal; column and architrave were the unities of its strength. Gothic architecture is perpendicular: the buttress, the pier, the pointed arch, are the secrets of its daring height. Stability is present in each branch of architecture. But it was secured in the classical buildings by the strength of great masses of stone,

FIG. 138.



CATHEDRAL AT HALBERSTADT, CROSS-SECTION.

and from this source comes the impression which they give of solidity and massiveness. In Gothic buildings, however, stability was obtained by new static laws, in obedience to which a multitude of smaller blocks could be fashioned together into one whole, so strong that the shocks of storms and the decay of time were successfully defied. It is now apparent through what means the lofty walls of the Gothic nave were sustained. The side-thrust was counterpoised by the flying buttress; and the wall buttress, from which it sprung, had the mass increased by the superimposed pinnacle. Profound was the knowledge of static laws revealed in these Gothic churches. Infinite, almost, was the painstaking of those who chiseled out in stone their separate parts, and laid them in their appropriate places. Men must be serious and thoughtful to understand these workmen. A glance at their work will please the most superficial observer; a study of the symmetry and beauty of their churches will elevate and refine each faithful student.

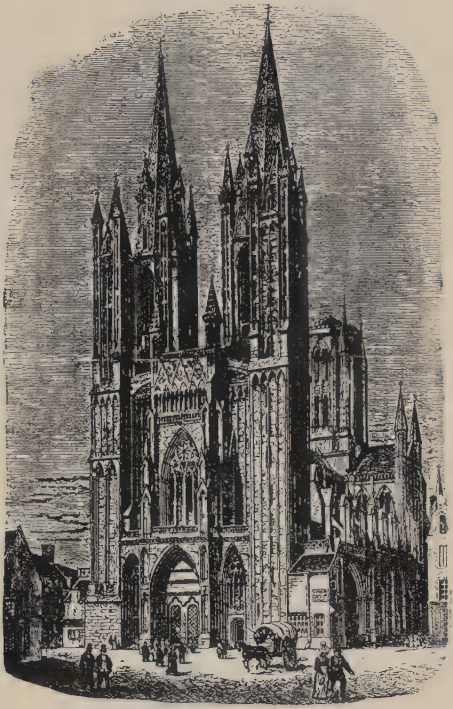
B. EARLY GOTHIC STYLE, 1225-1300.

§ **The Designation.** Early Gothic indicates a period of development in the Gothic style. Among the French, this period is called *Ogival en Lancette*, or the Lancet-pointed Style. The French indicate in this way the fact that early Gothic structures employed the acutely-pointed arch. It is not to be understood because Gothic architecture is divided into periods that therefore all Gothic edifices are to be classified into three groups. A single cathedral, not unfrequently, has parts belonging to each of these periods, because all great cathedrals were many decades in building; a few required even centuries. Yet there is a general uniformity of character in the great cathedrals which readily assigns them to some one of these three divisions.

§ **Obligation to the Romanesque.** The Gothic type was new; nevertheless, the edifices of the early Gothic style show the influence of the Romanesque style. It could not be otherwise; for the authors of the Romanesque style, the clergy of the Christian Church, were the conservators of all arts in those days when the Germanic peoples were taking upon themselves the obligations of religion and citizenship. Then the clergy built great churches, wherein architecture and sculpture could best be studied. Hence, these edifices influenced mightily early Gothic. Constructive principles, not the decoration of the supports and the ornamentation of the openings, occupy the mind of those who originate a new type. The harmonious blending of all the features of an edifice is the work of those architects who receive the new constructive principles and share the noble aims which inspired the originators. Those who perfected the Gothic type inherited the new form and all the mutual relationships of its various parts; then they, under an enthusiastic love for the new type, revealed the marvelous beauty with which the new type might be clothed, and gave to men the perfected Gothic cathedral, an architectural structure so wonderful in its daring and so graceful and lovely in its symmetry and ornament that it crowns man with glory and honor.

§ **Early Gothic Façade with Arcades.** The new adjustment between the State and Papacy brought about increased activity in church building. Old edifices were remodeled, new cathedrals were erected. Those places most progressive threw off first the Romanesque features in their churches. Hence, it occurs that some churches of a late date show more of the Romanesque characteristics than do earlier churches. The Cathedral of Coutances (Fig. 139) is Gothic in the splendid altitude of its choir, nave, and spires; it is early Gothic in the comparative plainness of its flying buttresses and finials; the lancet-pointed arches are evidences of the early Gothic But the long, narrow, perpendicular divisions of the tower-fronts are reminders of the Romanesque rather than the Gothic style. The western façade, it is true, has minor decorative details which belong to the later Gothic, and the tower above the crossing was built in the present century; still, the whole impression of this edifice is Gothic. However, the Gothic principles and modes of decoration had not been emancipated from the influences of the Romanesque style. As far as classification may be made of church edifices, this cathedral is early Gothic, having the lancet-arch; the almost solid tower beneath the spires, with long, narrow arcades upon its face; the appearance of the triple portal between the towers; and a well-buttressed nave.

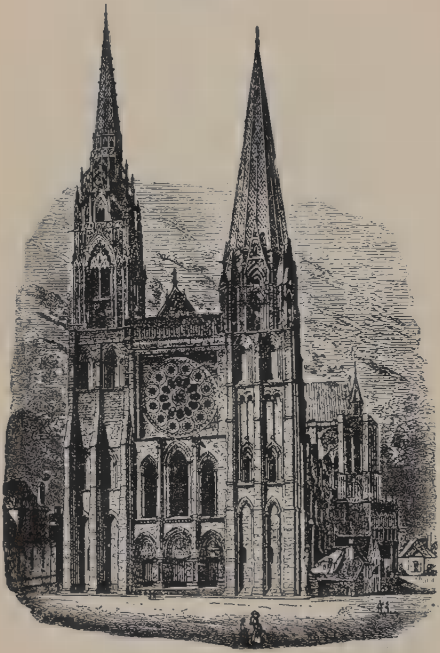
FIG. 139.



CATHEDRAL OF COUTANCES.

§ **Early Gothic Façade with Buttresses.** The north tower is decorative Gothic; otherwise, the western façade (Fig. 140) is early Gothic, and shows evidence of advance upon the Cathedral of Coutances. The face of the towers is divided, not by long, narrow arcades, but by huge buttresses. These same tower-faces are separated into stories, and all above the first have pointed windows in them. The triple portal is still built between the towers, but the central portion is more richly adorned. A triple window is above the portal, and, higher still, is a beautiful rose-window. The kinship between the two façades is at once evident—the Romanesque likeness is seen in both; yet the advanced Gothic development in this façade seems to separate it distinct and clear from any Romanesque façade. Perhaps no cathedral can offer better examples of the three periods of the Gothic than this same Cathedral of Chatres. The general character of the western façade is early Gothic excepting the northern spire, which is the late Gothic,

FIG. 140.



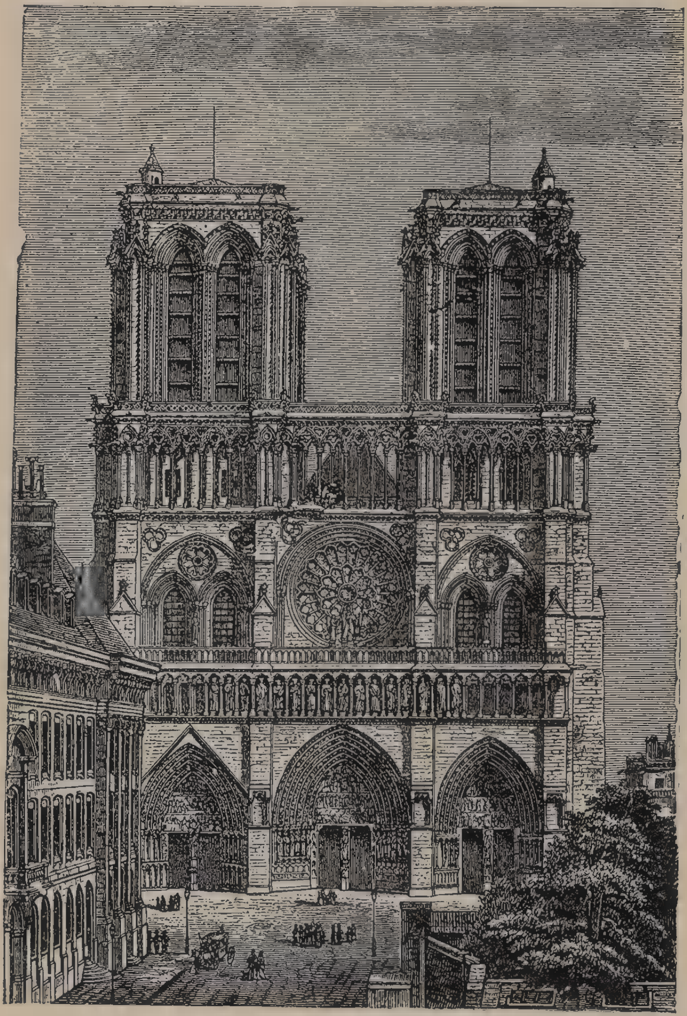
CATHEDRAL OF CHATRES.

or Flamboyant Decorative. The south porch is one of the finest examples of perfected Gothic.

Before leaving this early Gothic façade of the Cathedral of Coutances (Fig. 139), attention should be directed to the arcade between the two massive towers, making a series of niches for statues above the rose-window. This arcade answers to those arcades in the Romanesque style beneath the gable. The suggestion of this arcade may be traceable to the Romanesque, but the handling of it is Gothic, and becomes, in later edifices, one of the most remarkable beauties of the western façade. The light-apertures in this façade of the Cathedral of Chatres are most noticeable. They all open into the lofty nave. And there was peculiar impressiveness, as well as splendor, when, at the vesper service, the low western sun sent its last rays down this long and lofty nave, and up into the choir, touching, on its course, the gold and purple of the priestly vestments, and kindling with brightness the beautiful windows of the choir. The worshiper seemed, indeed, to be for a moment in a paradise of beauties, brief vision of the future glories awaiting the faithful. It is while under the influences of such impressive emotions that we may obtain an adequate understanding of the wonderful powers inherent in the religious faith which our Lord, the Christ, revealed. The churches of the Christian religion are not hedged round with mysterious and superstitious sanctity, but are gathering places, where all who come may be enriched with thoughts awakening profoundest meditations, and may have enkindled feelings and great hopes, which answer the deepest demands of our hearts and the loftiest anticipations of our ardent spirits.

§ **Developed Early Gothic Façade.** Early Gothic attained its highest development in the type of western

FIG. 141.

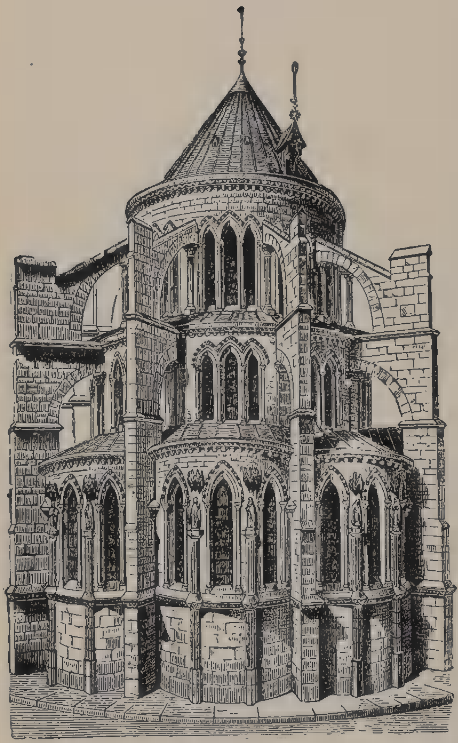


NOTRE DAME, PARIS.

façade as presented in Notre Dame of Paris (Fig. 141). There are three perpendicular divisions, effected by buttresses; the central one corresponds to the nave, the side divisions to the aisles. There are three horizontal divisions, made by beautiful arcades. The upper arcade is open, and marks the place where each tower is set free and begins its bold ascent upward. The lower arcade indicates the transition from the aisle to the gallery, and it is a canopied arcade, having niches where the effigies of civil rulers are placed. They seem guards over the entrances of the people, while in the portals, each in his own canopied shelter, and in perilous attitude—defying, indeed, all laws of gravitation—the saints of the ages stand, witnesses of the faith to believers who enter the house of God. Then, in the arch-head, skillful hands have sculptured the form of the Master, establishing on the cross, or else in the resurrection, unspeakable hope for mankind. This is the Gothic western façade, great in its embodied thought, magnificent in its stately grandeur.

§ **The Early Gothic Buttress.** The resistance to the thrusts of the arches within a Gothic edifice was met, not by thick wall, as in the Romanesque building, but by buttresses external to the wall-piers. These buttresses were at first plain and massive. They therefore become most helpful in assigning a Gothic church to the period in which it appeared. The first horizontal division is at the height of the window-sill; the second at the height of the aisle shed-roof; the third is at the height of the triforium, and extends to it in the form of a flying buttress. There is sometimes built upon this upper portion a second flying buttress to the clerestory. As yet, the chief thought of the architect was to make stable, not to beautify; or, if a buttress is made ornamental, it seems rude compared with the buttresses of the perfected style. Generally, it may be said that the exterior of the Gothic church (Fig. 142) has always a most distinctive character because of the buttresses and flying buttresses, which constituted the strength of the walls, and that early Gothic constructed these supports with apparent forgetfulness, or rather, with complete ignorance of the opportunity which they proffered for making the rarest and most perfect ornament ever placed upon the exterior of any edifice. The early Gothic buttresses were narrow in front and had disproportionate depth on the sides. They made this impression when viewed from base to summit. They were devoid of ornament. The lower buttresses had no paneling, and were without pinnacles, while the flying buttresses, which sprang over the roof of the aisles, were heavy and quite unattractive.

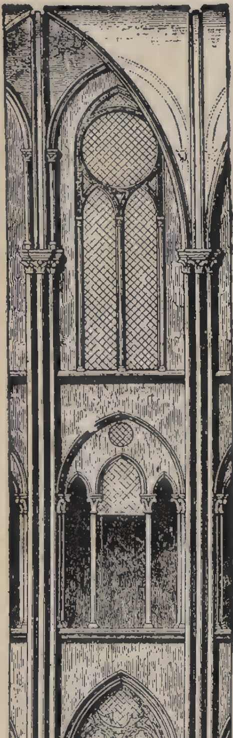
FIG. 142.



CHOIR OF NOTRE DAME, AT CHALONS.

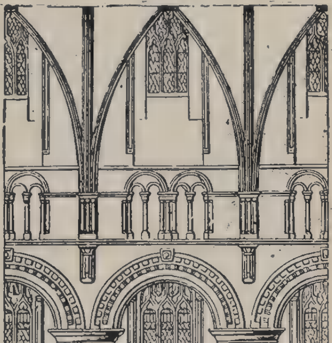
§ **Contrasted Nave-bays.** The early Gothic bay (Fig. 143) shows resemblances, together with most marked differences, when compared with the bay of the Romanesque style (Fig. 144). The strong cylindrical column for the lower support is common to both; so, also, is the threefold division of the bay and the cross-vaulted ceiling. Yet the impression of the two bays is essentially different. The pointed arch of the Gothic enables the architect to attain most gracefully an imposing altitude in the bay, while the splendid light-apertures make it beautiful and bright.

FIG. 143.



BAY OF N. D., PARIS.

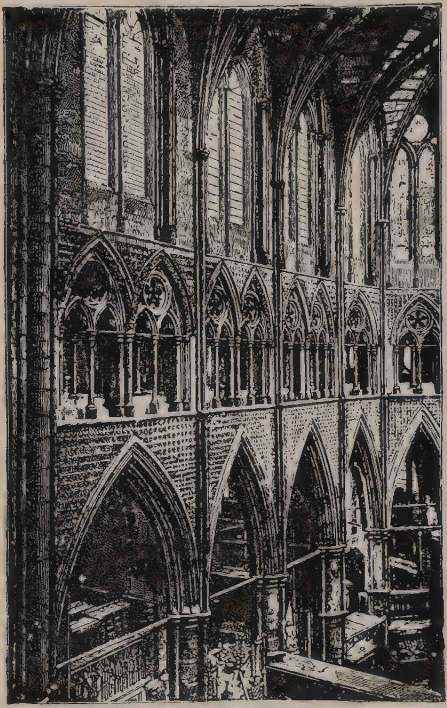
FIG. 144.



BAY OF GLOUCESTER CATHEDRAL.

§ **Early Gothic Columns.** It was not long before the early Gothic style introduced the clustered column. The nucleus was a cylindrical column (Fig. 145), with its own capital at the summit. Around this central column were set four half-columns, each with its own capital. The ribs of the vaulting are sustained by shafts upon the nave-walls, which rest upon the abacus of the capital. Later, these vaulting lines descended the side of the pier and became attached to the base. This change heightened the impression of organic construction from floor to roof. It may be said that early Gothic gives greatest preference to the half-round column on piers, to half-round shafts on walls, to the half-round mouldings, especially in vaulting ribs. Windows in this style were generally lancet-shaped, bipartite, with a circle in the head. The capitals of columns were ornamented sparely with leaves, imitating closely the forms of nature. The architects of the early Gothic

FIG. 145.

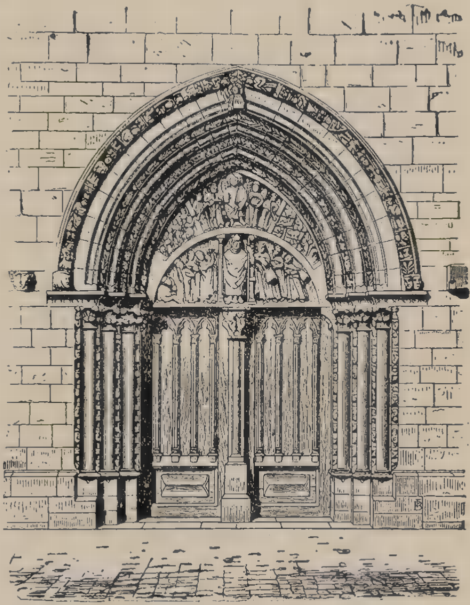


CHOIR OF WESTMINSTER ABBEY.

received suggestions as to the partition of surfaces and the pier-supports from the Romanesque buildings; but the new indwelling spirit in every part seems to obliterate any Romanesque likenesses, transforming into one harmonious whole the old and the new.

§ **Portal with the Pointed Arch.** At first, the Gothic portal was deficient in the organic connection of its parts. This is at once apparent from the portal of St. Martin's, at Colmar. Indeed, the pointed arch (Fig. 146) might have been replaced by the round arch; for all the pointed archivolts rest upon a kind of architrave above the capitals. Engaged columns were also placed in the door-jambs, in the same fashion as is seen in the Romanesque portal (*vide* Fig. 98). Sculptured figures, illustrating Scriptural events—especially the dramatic scenes in the life of Christ—fill the space above the transom. There is scarcely any indication of the magnificence with which Gothic architects sur-

FIG. 146.



PORTAL, CHURCH OF ST. MARTIN.

rounded the later Gothic portals in those of the earliest style. The great constructive features of the edifice were the controlling thoughts with the builders of the early Gothic. So they did little more than to place the pointed arch above the Romanesque portal, removing the round arch. It was only slowly, step by step, that the great principles of Gothic architecture entered into every part of the Gothic edifice.

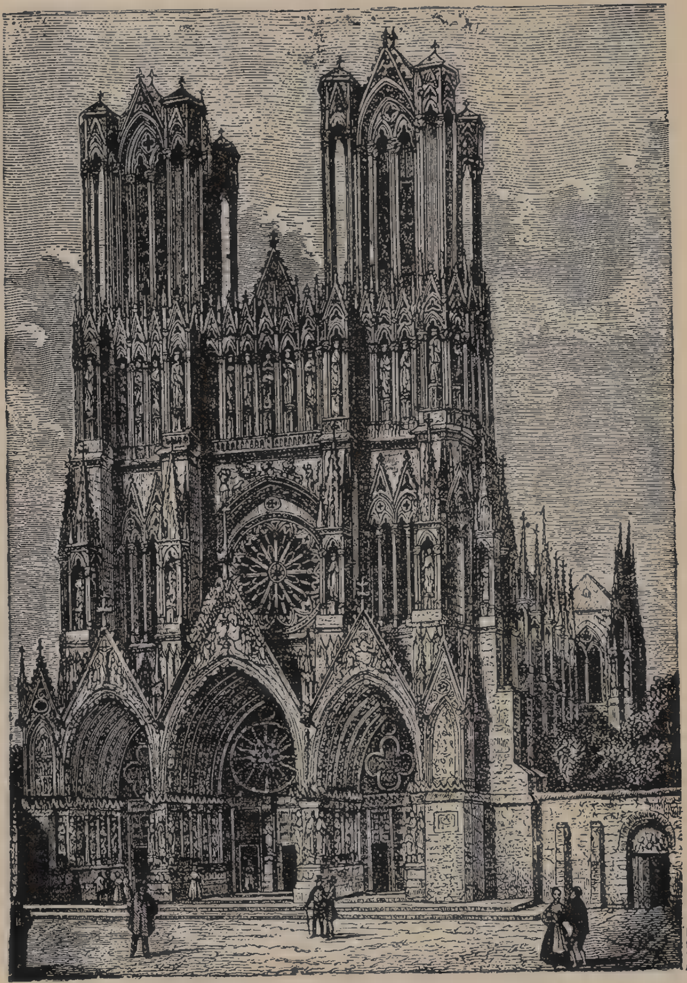
C. PERFECTED GOTHIC STYLE, 1300-1420.

§ **The Designation.** Perfected Gothic Style is a designation which indicates the period in which Gothic architecture reached its most complete and perfect development. The Germans prefer to call this period the Radiating Pointed Style. This designation indicates a constructive feature present in the pier development and in the traceries of the cathedral. The pier seems to spring from the earth and to send forth lateral branches, forming the lofty and noble pointed arches of the nave. Continuing upward, the pier rises until it again branches into those offshoots which make the graceful vaulting ribs. The columns of the triforium arcade exhibit the same radiating principle, and the window-tracery, through branching wall-posts and mullions, seems but part of a luxuriant growth, which moves along lines of beauty, and never is suffered to become wild and irregular. The favorite designation of this style among the English and French is the Decorated Gothic, by which expression attention is called to that marvelous and various ornamentation which, especially, is seen upon the exteriors of those cathedrals which are at once the glory and the perfection of Gothic architecture.

§ **Classical and Pointed Architecture.** It is only in the perfected Gothic that the correct understanding of these contrasted styles may be obtained. Classical architecture is horizontal. It has the lintel above the openings of door and window, not the arch. It has the architrave upon columns, not the arch. Cornices mark the terminations of the stories and the edifice itself. All these features are horizontal. The Romans introduced the round arch into the apertures of buildings, and Constantine, in his churches, extended the use of the round arch by substituting it in place of the architrave. Still, with these changes, edifices had prominent horizontal features. The introduction of the wall-pilasters and pier-buttress gave vertical features to some Romanesque churches, and the wall-pilaster in Latin basilicas and in classical temples answered, in part, the same purpose; but it was the triumph of Gothic architecture to banish almost entirely from a building the horizontal features which had reigned, almost undisturbed, in façades for twenty centuries.

The vertical line is the dominant line in a Gothic cathedral; the pointed arch, the substitute for all lintels and architraves; the gable is the external covering for all roofed spaces, including those sheltered nooks where the statues of saints were set. The tower is completed only when it is surmounted by a spire, and the proper termination for a buttress is a finial. Gothic architecture interrupts everywhere the horizontal line by the pointed arch, the gable, the buttress, and the finial. Classical architecture charms because its beauties are near by, for its elevation is low. It also astonishes, because of the great masses of stone in the foundations, in the columns, and in the architrave. Gothic architecture creates astonishment because its roofs and towers and spires reach dizzy heights. Yet Gothic architecture charms by the beauties in its windows and portals; yea, even on the faces of its walls and towers and spires.

FIG. 147.

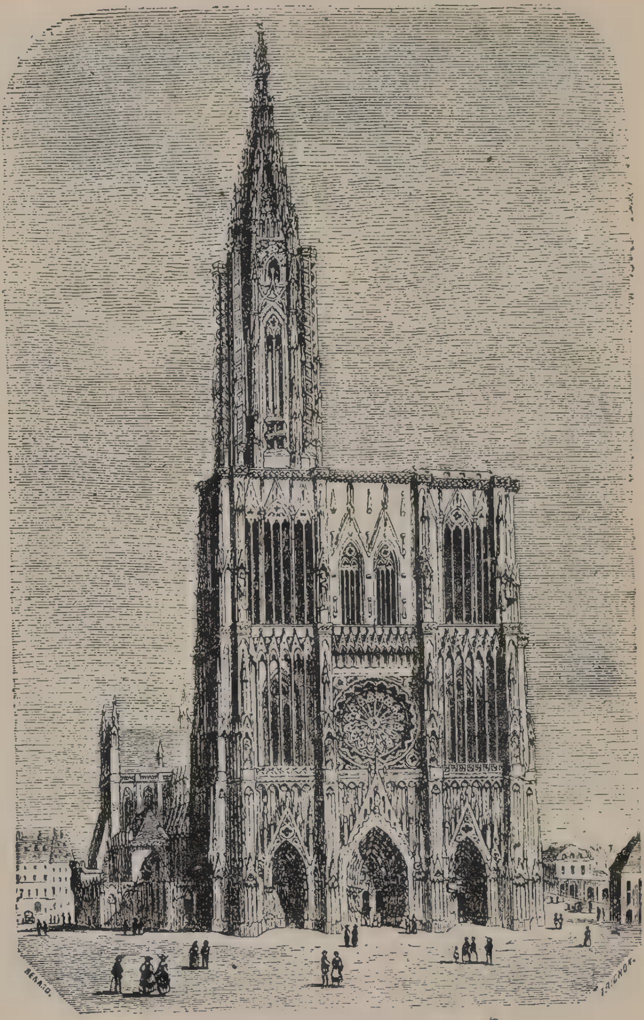


CATHEDRAL OF RHEIMS.

§ **Perfected Gothic Façade with Towers.** A comparison of the western façade of the Cathedral of Rheims (Fig. 147) with that of Notre Dame of Paris (Fig. 141) will make evident the purpose of the architect to eliminate the horizontal features from the perfected Gothic façade. The magnificent pointed archways before the portals in the decorated Gothic are completed with the crocketed pointed gables; each window, except the rose-window, every niche, receives its completion through this same crocketed gable. Finials mark the meeting of each gabled canopy with its neighbor. Imposing ornamented tabernacles make the upper corners of the towers, and the faces of the towers are bipartite-pointed windows, each with its crocketed gable termination. These pointed terminations above portals, windows, and niches, on buttresses and on towers, indicate the new aims which were sought and attained in the perfected Gothic. The architectural grace and richness of this front illustrate the triumph of pointed architecture over the horizontal, of Christian Gothic architecture over the pagan classical type; for the horizontal features disappear, and all the prominent lines move toward the vertical, alluring the eye upward, from beauty to beauty, as they are revealed in portals and windows, and in those graceful tabernacles, within which some beneficent saint is safely sheltered.

§ **Perfected Gothic Façade with Spires.** The impression from the western façade of the perfected Gothic, having the spire, is that of a struggle upward, each step marked by grace and beauty; and the admiring eye mounts these steps with wonder and admiration, only to leap, at last, from the apex of the cruciform flower, at the summit of the spire, into the vast expanse of the sky. Most beautiful among Gothic cathedrals is that

FIG. 148.



CATHEDRAL OF STRASBURG. ?

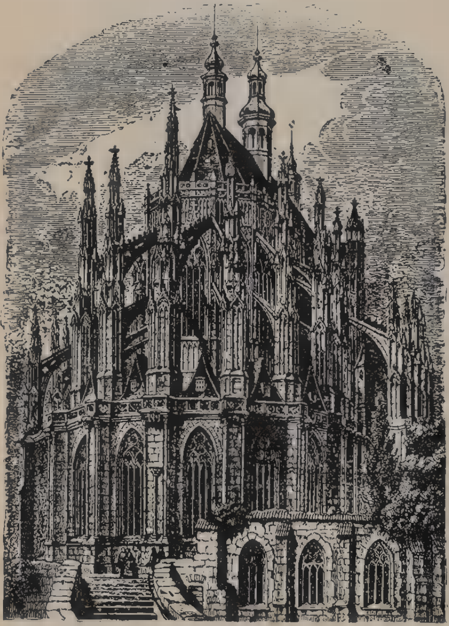
This is surely a
mistake. See the des-
criptions on pp. 211 and
45,6 two spires are men-

of Strasburg, which was in process of building more than three centuries. The western façade of this cathedral (Fig. 148) presents the consummation of Gothic aims. Splendid pointed portals in the first story; magnificent windows and arcades in the second; both portals and windows are richly adorned with the crocketed gables above them. Then the eye follows the pointed windows of the towers, marking the belfries, each window beneath a crocketed gable, and at the corners of the towers are beautiful polygonal turrets. Enthusiasm kindles increasingly in the observer as his eye climbs still upward along the sculptured triangular faces of the spires, which terminate, high in the air, with the graceful cruciform flower.

§ **The Choir's Façade.** Perfected Gothic wrought the buttress and the flying buttress into exquisite forms of beauty. The wondrous splendor, given to these supports of the nave, effect such charm that the exterior of the choir and nave seem to lose none of their attractiveness when compared with the magnificent beauty of the western façade. The order of progress in the enrichment of a buttress enables any one easily to detect the conscious and worthy pride of Gothic architects in this essential element in their edifices. We may follow this progress in the exterior view of the choir in the church at Kuttenberg (Fig. 149). The lowest stage of the buttress is quite plain as far as to the height of the aisle. Beneath the water-table at this point the water-spout for the aisle-roof is placed, being curious gargoyles fashioned into distorted animal forms. The second stage upward is as far as the first flying buttress. This part is paneled with forms resembling window-tracery. The third stage begins where the second flying buttress is made to spring in order to reach the high clerestory.

Here tabernacle work is found, and, within it, statuary. The beautiful finial surmounts the buttress. Along the roof of the nave and choir, marking the lines of impact of the flying buttress upon their sides, pinnacles are raised, harmonious with those upon the summits of the buttresses. The care spent on these mere wall-supports of the greater cathedrals, in order to beautify them, leads us to wonder at the genius of these architects, who transformed the external bracings of walls into one of the most imposing and lovely features in their wonderful edifices.

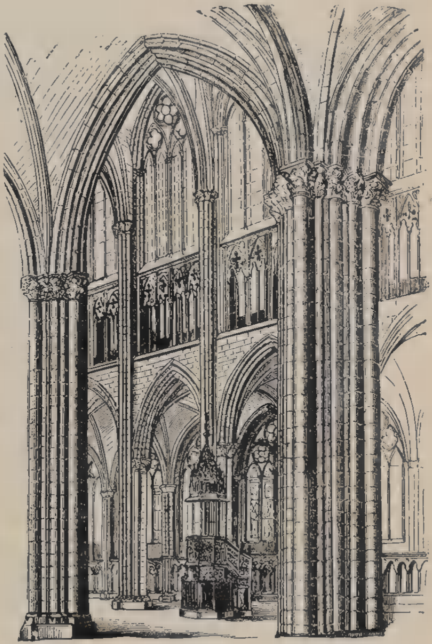
FIG. 149.



CHOIR, CHURCH OF ST. BARBARA.

§ **The Nave-bay.** The pier-arch, the triforium, and the clerestory (Fig. 150) compose the Gothic nave-bay. Consider first the pier-arch. Piers seem to spring from the ground, and to branch, forming arches and the groined ribs for the vault. The property of branching is the essential principle of the decorative Gothic pier. It is named, as in the Romanesque style, the clustered pier. A fine view of the aisle-side of this Gothic pier is seen in the engraving. Each archivolt, each groined rib, has its own corresponding column in the cluster. Also, a glance at the nave-side of this pier exhibits a cluster of columns, mounting as high as the clerestory, to give support to the vaulting of the nave. Through the ample archway of the nave is seen the inner view of the aisle-wall, built between mighty buttresses, opposite the nave-piers. No part here is neglected. The dado is beautifully paneled with half-columns, supporting the pointed arch; tall windows, with beautiful pointed tracery, throw their light across the aisle and nave, and richly-moulded groined ribs adorn the vaulting of the aisles. The triforium is often open, thus securing more ample window-apertures, in order to fill the interior with a greater volume of light. It is, however, the clerestory which is most open to the sunshine, for it is merely a series of vast windows. The tracery work of the windows, both in the aisles and the clerestory, becomes one of the most efficient aids for the classification of the Gothic cathedrals. The perfected

FIG. 150.

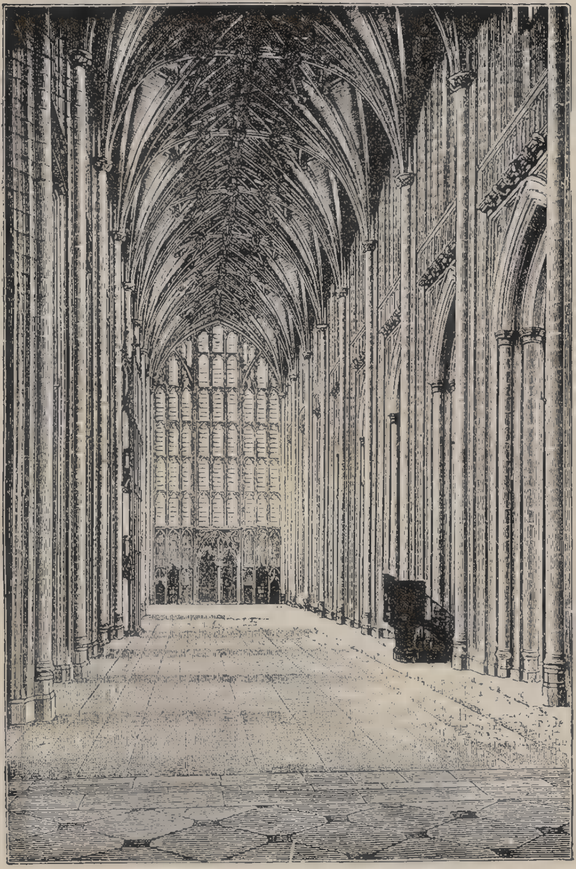


NAVE, STRASBURG CATHEDRAL.

Gothic window has pointed arches upon mullions, dividing the space below and forming the window's transom. Foliated forms fill in the window above the transom. Remembering that the windows were filled with stained glass of the richest and deepest colors, and often presented through their colored splendor the precious events of Holy Writ, these windows, lighted by the sunbeams and framed by beautiful arches, seemed but beautiful screens, which separated the beholder from unspeakable glories beyond.

§ **The Perfected Gothic Nave.** Our example (Fig. 151) is taken from the Cathedral of Winchester, and shows the great window in the western façade. We are impressed with the severe simplicity of this avenue of stately piers, reaching to the vaulting ribs of the nave. Then we admire the simple elegance in the form of the lofty pier-arches, within which the glory of the aisle-windows appear. The triforium seems diminutive between the pier-arch below and the tall clerestory window above, which is ablaze with colors. Then the nave-vaults charm us by their branching ribs, woven into star-shaped patterns at their junction. The great western window seems the appropriate beginning of this nave, opposite to which was the gorgeous beauty of the sanctuary; for they who designed this great window for the western façade, sought only to catch the last rays of the sun at its setting, and flash their colored beauty, at the vesper-service, along the nave unto the altar of this building, which is "fitly joined together, and groweth into a holy temple unto the Lord." What shall we say, then, when we see that these beautiful, vast naves are seldom peopled full with worshipers in these our times? Simply, that at one time a city's believers crowded these naves and bowed in reverent fear before the gorgeous services of the sanctuary, and that these people in worship were then as impressive as their noble and charming

Fig. 151.

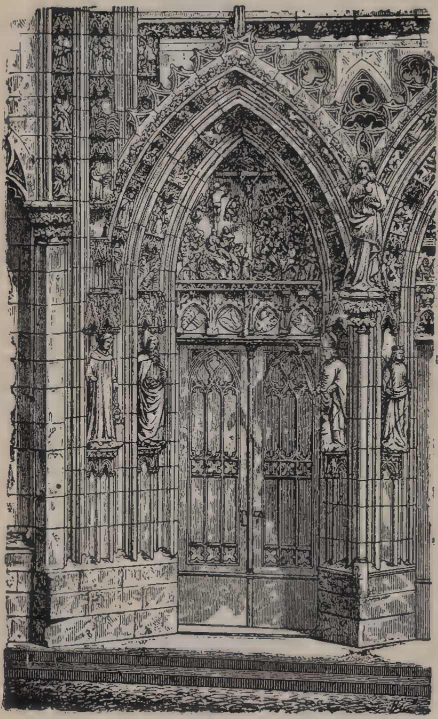


NAVE OF WINCHESTER CATHEDRAL.

cathedrals; simply, that now the pagan splendors of ritualistic worship do not captivate a modern city.

§ **Decorated Gothic Portal.** One archway in the triple-arched portal of the church at Thann will suffice to make clear the wealth of beauty and the charming constructive unity in the perfected Gothic portal. Any arch substituted for the pointed arch here would destroy the unity of the structure. The arch's support is not columns, but such groups as are found in the clustered piers of the nave. The spring of the arch is marked by no sign of capital. Three receding arches make the doorway, between the archivolts of which statuary is set. Imposing statues stand upon brackets in the door-jambs. The pointed arch in the panel-work and the abundant use of foliated figures are evidences of the decorated style. Ornamentation is profuse. Indeed, signs of the decadent styles are traceable in the too ornate character of the arches, having a border of foliage on its outer face and cusps upon its outer curve. Comparison with Fig. 146 will reveal the advance in

FIG. 152.



PORTAL OF CHURCH AT THANN.

constructive unity, as well as a new mode of ornamentation which is to be found in the perfected Gothic.

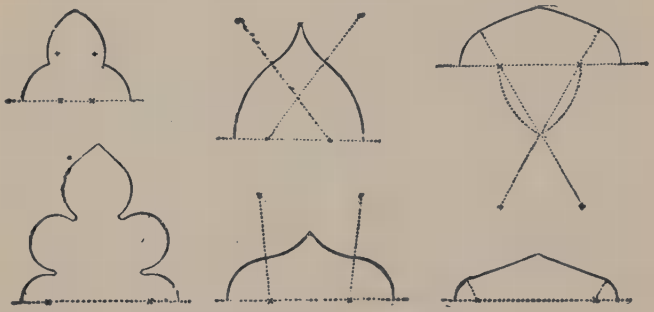
D. LATE GOTHIC STYLE, 1420-1500.

§ **A Decadent Style.** The late Gothic style is also rightly named the degenerate Gothic Style. Men could not be content to imitate the noble examples of perfected Gothic, confining themselves to a striving after greater excellence within the limits of the perfected Gothic art. They sought change. The result was novelties in arch-forms, whether at the portals or in the windows; novelties in the vaulting-groins; novelties either through excessive decoration or through poverty of ornamentation. In consequence, façades became fantastic, a mere grouping of discordant forms; and interiors revealed everywhere lawlessless to Gothic traditions. There were two distinct styles wrought out under this exertion for something new, without a corresponding advance in that nobleness of feeling in the architect which ever accompanies the origination of new and typical architectural forms. The English developed one of these styles, and it has received the name of the Perpendicular Style. The other style had its origin among the French, and is called the Flamboyant Style. Both names have reference to alterations chiefly in the tracery.

(1) PERPENDICULAR STYLE.

§ **Novel Pointed Arches.** The early and the perfected Gothic styles used only the pointed arch, which is constructed from two centers. This arch is either acutely pointed, obtusely pointed, or equi-angled. The novelty introduced into the late Gothic, especially in the perpendicular Gothic, is a compound pointed arch. There are several varieties of this compound arch, yet they have the common feature of being constructed from at least four centers. These (Fig. 153) are the triple and quintuple arches, the Tudor arch, and the ass-back arch, seemingly a satirical name, indicating an unsafe support.

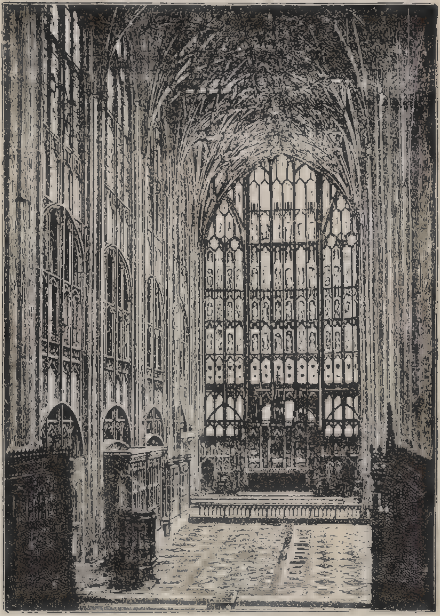
FIG. 153.



NOVEL POINTED ARCHES.

§ **Perpendicular Tracery.** The vertical line is the dominant line in all Gothic architecture. And in the two earlier periods there was present this distinctive feature, that if the eye followed a vertical line, the line led the eye to a pointed arch, or a pointed canopy, or the apex of a finial. But this feature vanished in the perpendicular style, for a vertical line was constantly interrupted by a horizontal one, as at doorways by labels, or in windows by transoms. Hence the perpendicular style has not the pointed idea in the tracery, found in the early style of English Gothic. The east window of Gloucester Cathedral (Fig. 154), having the remarkable dimensions of 38 by 72 feet, is one of the finest examples of perpendicular window-tracery. The greatest illumination of the choir is secured through this window, for the eastern termination of the choir is simply this wall of colored glass. Yet the window is more than the source of light—it is the place of apocalypse; for the saints and apostles of the Church, arrayed in beautiful robes, bearing the symbols of their service, stand here as if at the gate of heaven, witnessing the offering of believers before the high altar of their Lord. It is not, therefore, before such a magnificent window of the perpendicular style that we feel its limitations. The transoms of this style seem here appropriate support for the feet of the heavenly visitants. Yet perpendicular tracery in the windows of the aisle and the clerestory ever failed to awaken that feeling of aspiration which came to one while beholding the lofty window-divisions, unbroken by transoms, which adorned the earlier Gothic cathedrals.

Fig. 154.

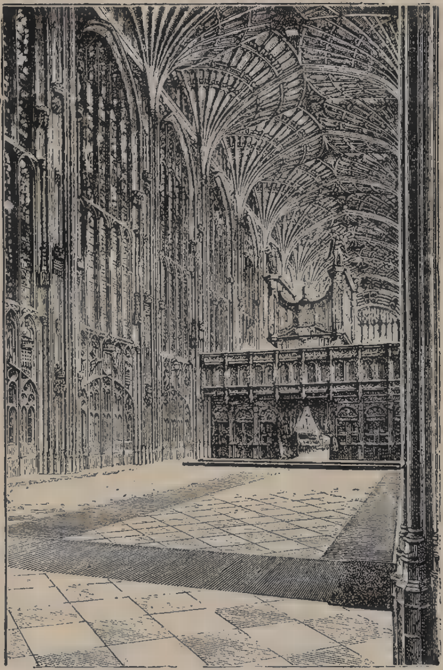


CHOIR, GLOUCESTER CATHEDRAL.

§ **Ramiform Vault.** The English architects in the perpendicular style developed a most remarkable modification of the ribbed vault. The peculiarity in this new construction of the vault consisted in making the vaulting ribs many in number, springing from one point, like so many branches, as seen in Fig. 154. The interlacing of these branching ribs by means of shorter ribs produced what has been named the net-work vaulting, which gives to the vaulted ceiling the appearance of open lace-work, woven in stone. Where the stone threads were crossed or knotted, the architect placed beautiful rosettes or other artistic designs.

§ **Fan-shaped Vaulting.** The most beautiful and graceful adaptation of the ramiform vaulting is found in the fan-shaped vault. In fact, this vault is but the ramiform vault with horizontal circular ribs, binding together the vertical branches, as seen in Fig. 155. The name given to this mode of vaulting arose from the resemblance of the vault to a fan when spread out and its ribs bent backwards, forming a kind of inverted cone, with the line from apex to base a concave line. The skill of the architect is readily recognized when we discern how he gathers together the central ribs of the fan-

FIG. 155.

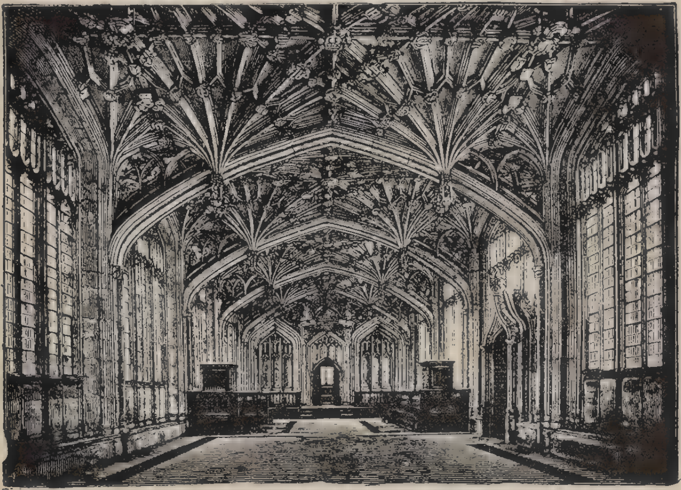


KINGS'S COLLEGE CHAPEL.

vault and unites their extremities to those in the opposite fan-vault, producing on the ceiling the form of the Tudor arch. This chapel at King's College, Cambridge, is a gorgeous hall, and the rigid lines of the perpendicular window-tracery blend, not inharmoniously, with the vertical and horizontal curvatures in the ceiling.

§ **The Pendant Vault.** The hall of the Divinity School, Oxford (Fig. 156), illustrates the chief characteristics of the perpendicular style. The clustered piers seem to be like a cluster of iron rods, a part of which are taken and bent across the hall for transverse arches; a part is taken and bent for the arches above the windows. The form of all these arches is the Tudor form. There is no graceful bending in these curvatures suggestive of a growing stem, such as is found in the

FIG. 156.

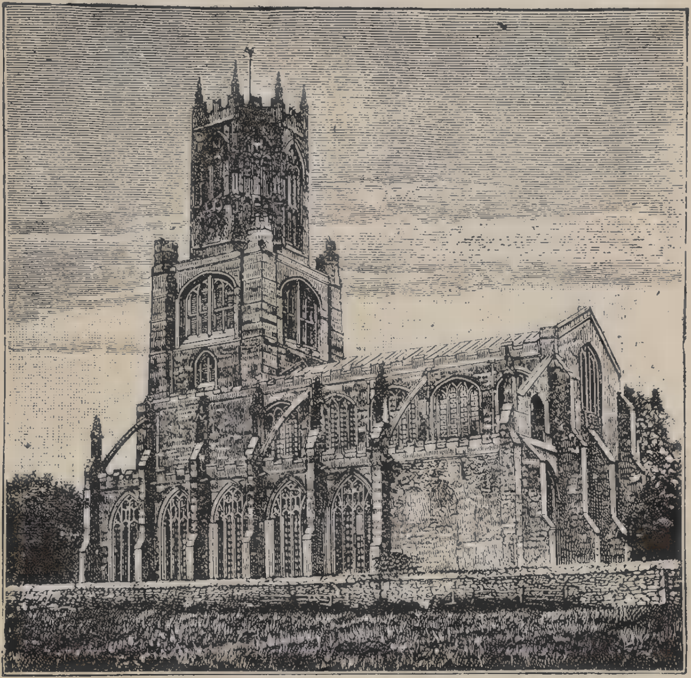


DIVINITY SCHOOL, OXFORD.

Gothic pointed arch; for one feels, when looking at the Gothic pointed arch, that it would spring upright if only the force uniting the arch at the apex would release its grasp. But the keystone of a Tudor arch might be removed, and still the sides of the arch would remain stationary, just in the same shape as it was bent. The perpendicular tracery of the windows, the ogee arch above the door on the right-hand side, are evidences of this style. The pendant vault makes the ceiling. An appreciative student of Gothic architecture describes the Tudor stem and arch in the following words: "Up rose the Tudor stems; but their branches, instead of rising higher and higher still, and entwining in the skies, soon curved downward, and united themselves in the inverted apex of the pendant." It is truly beautiful architecture, bent down from the skies to be admired of men.

§ **Tudor Church with Clerestory.** The Tudor Gothic church has been, since the 15th century, the typical church building in England. It is not a cathedral, but a parish church, and with the clerestory the edifice has impressive proportions. The Fotheringay Church, Northamptonshire (Fig. 157), built in 1434, exhibits the peculiar attractiveness of this style. The church is Gothic, being an inclosure built between buttressed piers, and having also the flying buttress. There is no transept, but a noble central tower stands at the western entrance. The choir is terminated by a window, magnificent in its proportions. The aisle-window has a Gothic pointed arch; the window of the clerestory is the Tudor arch; bar-tracery is found in both. This church stands as a witness that attainment of astonishing altitude had been given up, for the arches of the clerestory are of the low type. The towers and the roof-lines are completed with battlements, such as were common in castles. There is a simplicity in this structure and a solidity which comport well with the English character.

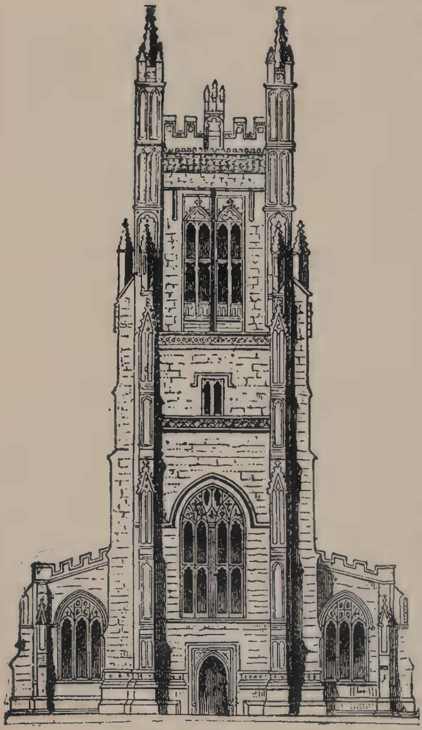
Fig. 157.



FOTHERINGAY CHURCH.

§ **Tudor Church without Clerestory.** The façade of St. Neot's Church (Fig. 158) will make evident the change in the church edifice by the omission of the clerestory. The vertical and horizontal divisions indicate the perpendicular style. Some windows are with and some are without transoms. All windows have the pointed arch. Most noticeable is the tower, which assumes grander proportions because of the low nave, and gives, therefore, a noble impressiveness to the whole structure, which is simple in form and strongly builded together. This style is in accord with the Engish people, among whom it had its origin, and with whom are present many examples of the style adorning its older towns. Simple, strong, noble, and devout are the people of this race. The parish church in the Tudor style may have but few architectural beauties beyond the windows through which the light enters to brighten the church and the tower whence goes forth the bell's call unto the people to come for worship. Nevertheless, this parish church is a thousand times more churchly than the hall-churches of the Continent in the Flamboyant style, where gewgaws of ornament, within and without, make a church seem a kind of decorated jewel-casket, whither people go to deposit gems of Paternosters and Ave Marias, and then depart to visit places thronged with the gayeties of a fashionable world.

FIG. 158.



ST. NEOT'S CHURCH.

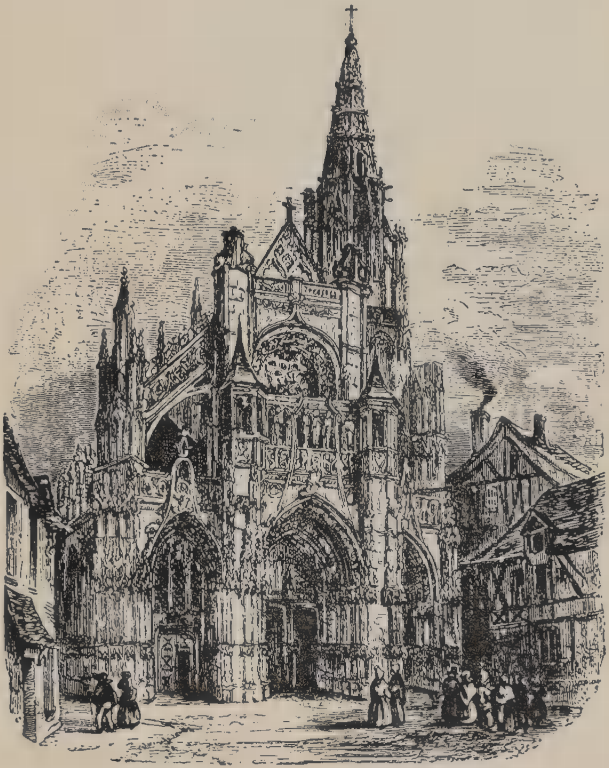
(2) FLAMBOYANT STYLE.

§ **The Designation, Flamboyant.** At heart, the movement which culminated in the Flamboyant style upon the Continent was an antagonism to the pointed Gothic style. The change in the tracery of the windows gave the name to this style. Instead of the pointed arch and the foliated forms of the earlier Gothic styles, the window-tracery was made as lawless as the curvings of flames. This resemblance suggested the name Flamboyant. The fish-bladder pattern is a common variety of this new tracery. Branch-work is found in some cases, and although it is an evident imitation of the interlacing of vine-stems, yet the unnatural stiffness often of this branch-tracery is anything but pleasing. The ruling curve in the Flamboyant style is a compound one, having its convex and concave parts. The numerous combinations of this compound curve, which was substituted for the simple curve of the pointed arch and the foliated forms which were found in beautiful window-tracery of earlier Gothic styles, produced a great diversity of patterns. Fancy was maiden free in Flamboyant tracery; for she cast off the Gothic forms, which had confined her ways within graceful limitations, and then moved unconstrained, making intricate paths in the tracery such as baffles the eye to follow.

§ **The New Alliance of Rulers.** That triple alliance of the three powers—the priests, the princes, and the people—received new adjustment, during the period of the Flamboyant style, which induced some changes also in the prevailing architecture. Guilds of the people, encouraged by the princes, originated and constructed Gothic architecture. But the knowledge of the new importance, which the people acquired through the splendor of their Gothic cathedrals, led priests and princes to unite in order to excel or obliterate these objects of popular pride by rivaling their edifices with others of greater splendor. Wealth was concentrated with the potentates of the Church and the State, and it may be doubted whether a king or emperor had more royal and imperial splendor than pope or bishop. The retinue of bishops suffer nothing when brought in comparison with the followers of princes. These holders of wealth, the spiritual and the temporal rulers, lavishly placed gorgeous extravagance of ornamentation upon cathedrals: upon their western façades, distorting or removing the features of pointed architecture; upon the choir, reducing to a decorative function the heretofore essential pointed arch; upon the vaulting, dropping, as if in laughter, the keystone downward in form of a pendant. Thus these rich rulers smote the pride of the people.

§ **The Distorted Gothic Façade.** The western façade of the church at Caudebec (Fig. 159) will illustrate the antagonism to pointed architecture. This front is profusely decorated, but without regard to the pointed style. The jambs of the doorways have upon them statues of saints, but there are no niches for them: rather, each is furnished below with an ornamental foot-stand, a kind of block richly carved and set in the column; and above, is a canopy beautifully sculptured. The pointed arches of the doorways have a hood-moulding above them; but it is not a pointed angle, whose sides are decorated with crockets. Instead, there is a kind of ogee arch with peculiar curvings. The rose-window above the portal is reduced, in all appearance, to a half circle. The great central buttresses are terminated, not by pinnacles, but by pyramidal roofs, such as are found on Romanesque towers. A flying buttress is seen, but it is made not to support a thrust, for its impact is against a tower. It is rather built to hold the mass of ornament, which is placed above the buttress. Everywhere antagonism to pointed architecture and its principles is present in this

FIG. 159

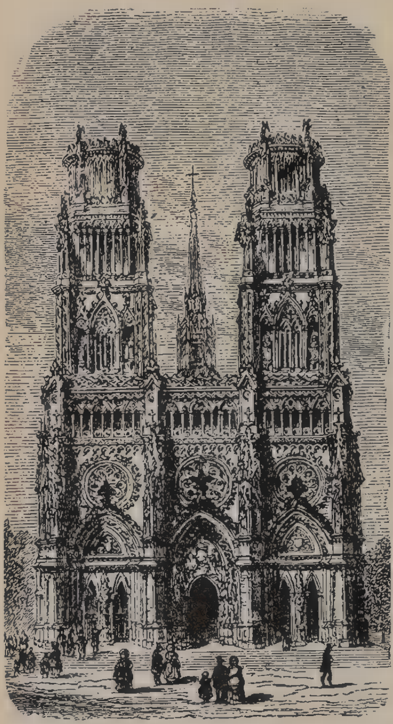


CHURCH AT CAUDEBEC.

façade. This new style is luxuriant, abounding in grotesque combinations; yet it is well calculated to impress vulgar minds more than the peerless beauty of the perfected Gothic style.

§ **Flamboyant Perpendicular Façade.** The western façade of the Cathedral of Orleans (Fig. 160) relegates to the realm of decoration the great features of the Gothic front, or else banishes them from the edifice. Notice the lintels of the side portals. The pointed arches are set upon them as mere decorations. The second stage of this façade has banished all reminders of the pointed style, substituting the circular windows in their stead. The arcade-gallery above is simply made for ornamentation; it is no part of a harmonious constructive Gothic design pervading the whole façade. The upper stories of the towers would stand strong and firm if the pointed windows and the arcade in them were removed; hence, these are simply ornamentation. Yet the western façade of the Flamboyant style, wherein the horizontal and perpendicular features usurp those of the pointed Gothic, is beautiful, and demonstrates its possibilities to win admiration scarcely inferior to the beauty that charms in the English perpendicular style.

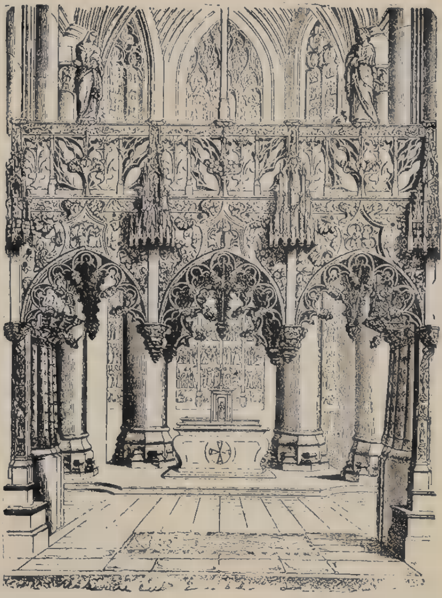
FIG. 160.



CATHEDRAL OF ORLEANS.

§ **The Pointed Arch as Decoration.** The screen before the high altar in the Church of St. Madeleine, Troyes (Fig. 161), exhibits the use of the pointed arch as mere decoration. Alternate panels in the upper border of this screen are ornamented with flamboyant tracery. The fringe, so to speak, is made up of three-pointed arches. They hang down; they have no support beneath their feet. The spandrels of the arches have a canopy in them, and the pendant, at the junction of the arches, is fashioned into a beautiful support for some statue. Here most noticeably is emphasized the purpose of making the pointed arch an aid in decoration.

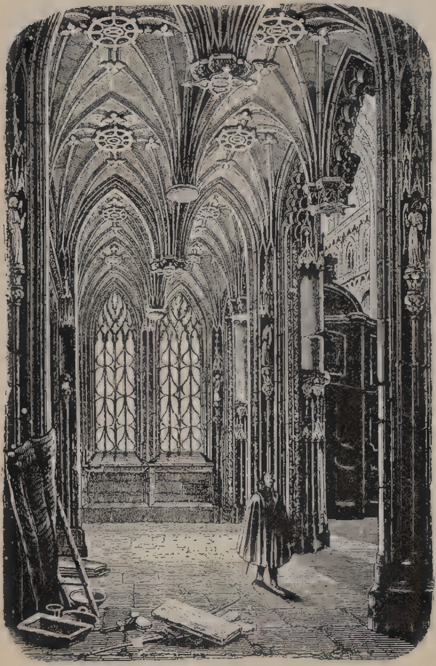
FIG. 161.



SCREEN OF ST. MADELEINE, TROYES.

§ **Flamboyant Pendant Vault.** The example of Flamboyant pendant vaulting is taken from the Cathedral of Alby (Fig. 162), built in 1512. It makes most manifest, when carefully considered, the movement afoot antagonizing pointed architecture. First, obsere the vault's pendants. One is large, with many mouldings; a second is smaller; the third is of the same size as the first; the fourth is like the second. Again, observe that the third pendant—and so, of course, the first—have transverse arches sent from their sides. Indeed, if columns be set beneath the pendants, there will be formed two vaulted aisles, having the pointed arch in the vaults. The differences in the size of the pendants and the mouldings upon them correspond to the forms which are the principal and secondary piers of the Gothic. Further, between the great piers in the bay of the nave a pendant hangs down, and it is made to support the feet of pointed arches. Fresh evidence is given in this church that the pointed arch is no structural part of the edifice, but may enter in, to give ornamentation to the several parts of the building. The two windows in the engraving show excellent examples of the flowing tracery, which is characteristic of the Flamboyant style. Generally speaking, all this gorgeous luxuriance in the tracery, and all the prodigal display of fancy in ornamentation, are irrever-

FIG. 162.



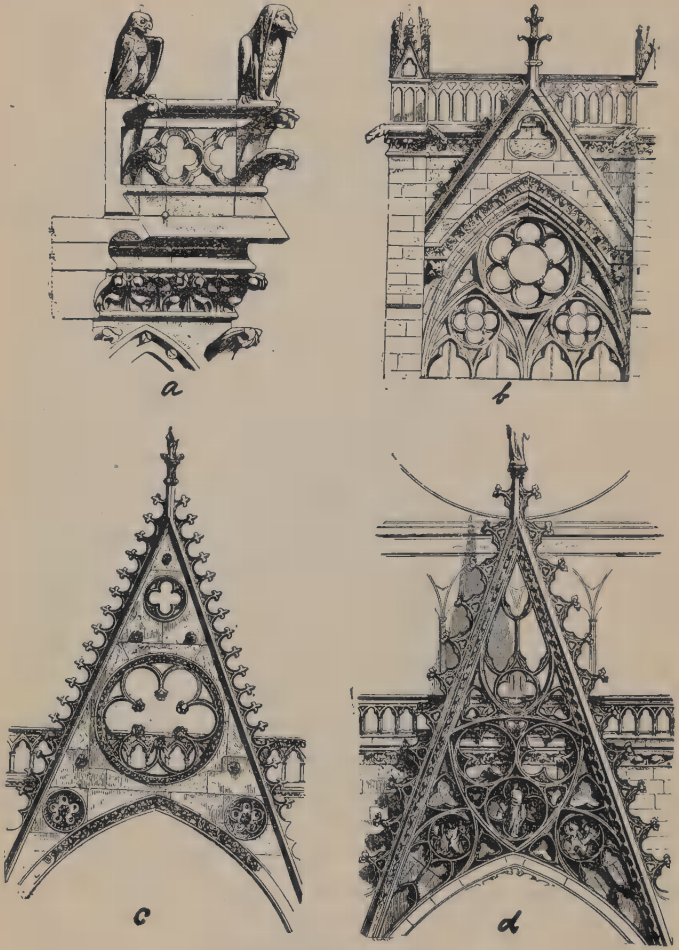
CATHEDRAL AT ALBY.

ent, wearying one with its lawlessness. It is Gothic, but a Gothic which destroys the essential and noblest principles of Gothic architecture, and seeks to atone for its crime by ostentatiously displaying Gothic constructive forms as things suitable only for ornamentation.

E. STRIKING FEATURES OF THE GOTHIC STYLE.

§ **A Retrospect.** Gothic architecture is Christian architecture set free from classic or pagan influences. The emancipation was accomplished only after centuries of struggle. In its general form the Gothic is simple, for it is either rectangular or cruciform in its ground-plan. Its creed gives stability, for it believes in mighty piers, pointed arches, and massive buttresses. It transforms into beauty the members upon which it depends for strength, so that the greatest charms of Gothic architecture are gathered around pier, arch, and buttress. The Gothic edifice is impressive because it has a wonderful vista in the nave and a mysterious loveliness in the graceful windows of its walls, all aglow with iridescent hues. The lofty height of the edifice, rendered still more wondrous by the long reach of the spires into the sky, gives grandeur of elevation. And the gorgeousness and variety of the ornamentation remind the observer of the floral world, wherein the Creator made marvelous forms and robed them in the richest garments of color. Yet nature's forms, not her colors, are fashioned on stone by the Gothic architects. Polychromy, if it exist in the Gothic cathedral, can be found only in the windows, where transmitted light loses its dazzling brightness in colored glass, and enters the church with its softened rays. Gothic architecture is, indeed, the ennobling thoughts and hopes of the Christian faith, wrought out with beauty in imperishable stone. And he alone who believes may read.

FIG. 163.

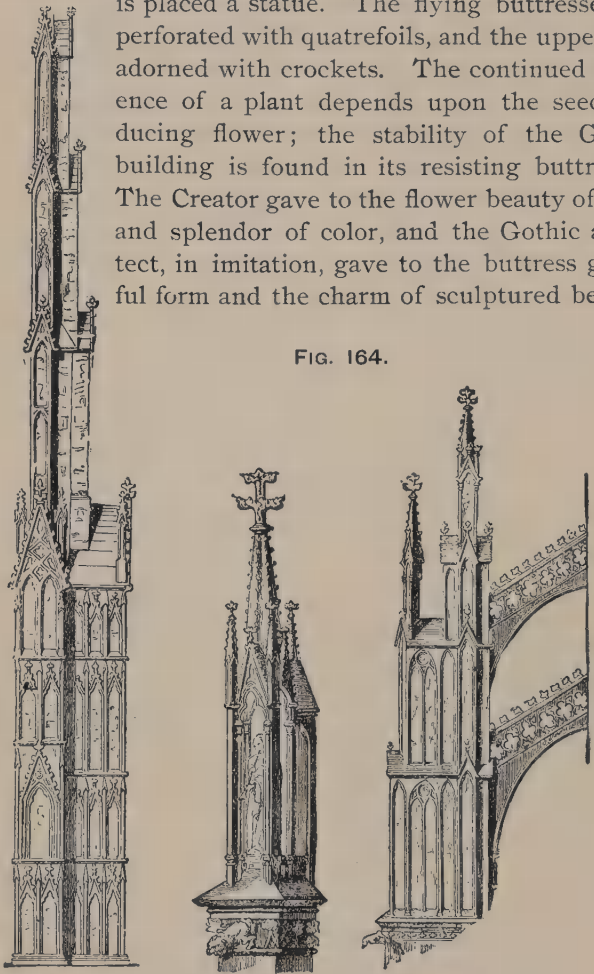


GOTHIC ROOF-BALUSTRADES.

§ **The Roof-balustrade.** Marked stages of development are traceable in pointed architecture along the junction of wall and roof. Early Gothic (Fig. 163, *a*) shows the frieze and cornice mouldings with a balustrade above them, which is pierced with quatrefoils and surmounted with birds of serious aspect. Here the influence of Romanesque architecture is apparent, not alone in the drollery of the birds, indicative of a vein of religious satire, but also in the unbroken horizontal lines of the cornice and balustrade. The deep, earnest purpose of the Gothic masters to banish all reminders of the Romanesque architecture from their edifices is manifested in the unique method they employed to give prominence to pointed forms where horizontal forms and lines seem inevitable. They omitted the frieze moulding (Fig. 163, *b*), and broke the horizontal line of the cornice with the crocketed gable of the window, and at the apex of this gable they set a finial, which interrupted the horizontal line of the balustrade. Fig. 163, *c* and *d*, exhibit the fuller development of this idea, giving at the eaves the charm and grace of beauty. The crocketed gable (*c*) was made to leap high above the balustrade, and the front of this gable was pierced with circular foliated forms. In this way the prominence of the cornice and balustrade, as horizontal features, was greatly reduced. The most ornamental development of this high crocketed gable is reached when the face (*d*) is filled out with flamboyant tracery.

§ **The Gothic Buttress.** The development of the buttresses into a more striking decorative feature of the edifice than the pilaster, which reflected the beauty of Grecian columns, was accomplished in the perfected Gothic style. Buttresses were paneled with pointed arches. Even the recessed pointed arch is found among these panels, such as is used in portals. Above the pointed arches are crocketed gables with their flower-finials. Some buttresses (Fig. 164) have a tabernacle finial, within which is placed a statue. The flying buttresses are perforated with quatrefoils, and the upper side adorned with crockets. The continued existence of a plant depends upon the seed-producing flower; the stability of the Gothic building is found in its resisting buttresses. The Creator gave to the flower beauty of form and splendor of color, and the Gothic architect, in imitation, gave to the buttress graceful form and the charm of sculptured beauty.

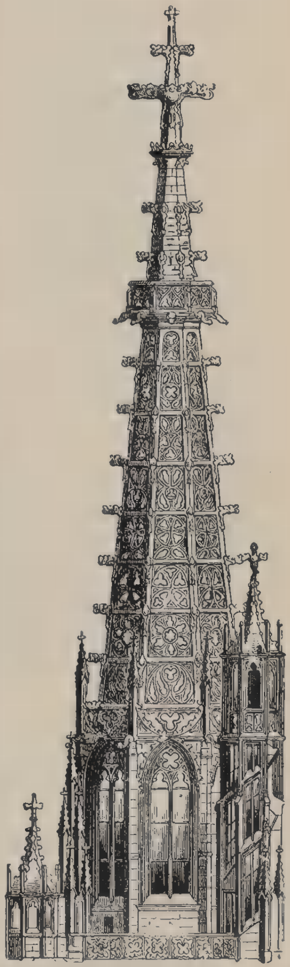
FIG. 164.



DETAILS OF THE GOTHIC BUTTRESS.

§ **Gothic Spire.** The greatest height in a Gothic cathedral was reached through three magnificent steps. The square tower rose from the ground a mighty foundation; the hexagonal belfry came next, an open clerestory, whence church bells uttered forth their warnings or else invoked the city to worship; the third story was the pyramidal spire. Fig. 165 shows the belfry and spire. It is a dazing height to which the spire ascends. Yet the Gothic builders hesitated not. Upward they climbed, weaving stone into lace-like patterns of geometric designs. They paused to set a crown at the termination of this lace-paneling of the spire. Then they built with solid faces until they completed the spire with the cruciform flower. It was not pride that led men to venture such height and to beautify as they ascended. Rather, they were inspired by the Christian faith, that approach to the heavenly must ever be in beauty and in holiness. Hence these builders pierced the sky with these spires, which grew in beauty as they neared unto the heavens, and in this beautiful structure they recorded a symbol of their faith.

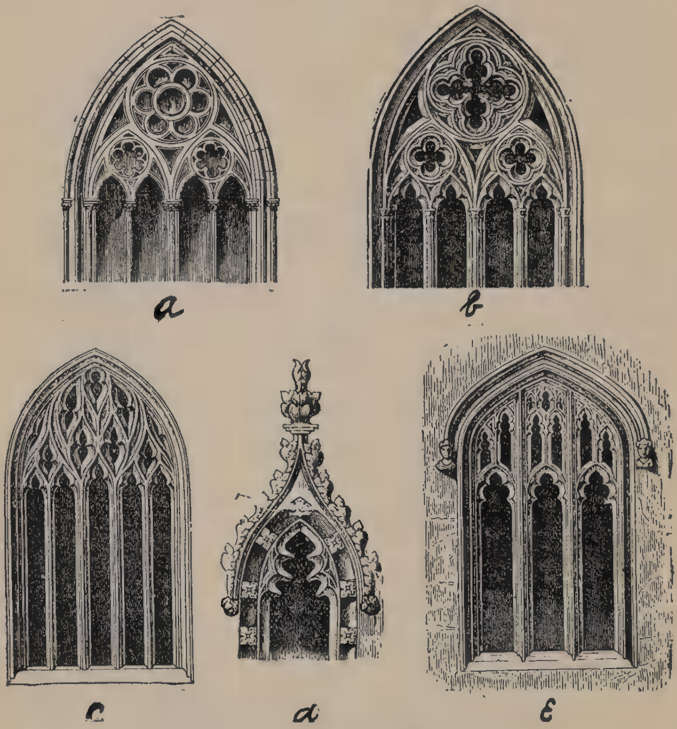
Fig. 165.



FROM CHURCH AT ESSLINGEN.

§ **Window-tracery.** The true Gothic window is the three-in-one style. The foliated figures indicate its construction. The encompassing pointed arch (Fig. 166, *a*) has in its head the larger multifoil, having two pointed arches tangent to its circumference. Each smaller multifoil has also two pointed arches within, tangent to their curves; hence the name three-in-one. This same style often had the quatrefoil (*b*) in the head of the encompassing arches, and cusps adorned the concave of all

FIG. 166.

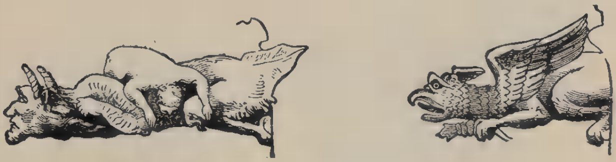


EXAMPLES OF WINDOW-TRACERY.

pointed arches and foliated figures. The flamboyant tracery (*c*) expelled the geometrical forms, and seemed to consider the mullions as torches, whose flames made the tracery in the window-heads. The ogee-arched window (*d*) lacks either symbol or poetry in its make-up, being a pretty ornament. Perpendicular tracery (*e*) is prosaic, filling an opening with as little of artistic form as possible.

§ **Gargoyles.** Along the line of the eaves, beneath the parapet, strange-shaped figures were made to project in the greater cathedrals. They served as mere waterspouts. It is not their use, but the oddness of their shapes, which make them most striking. They are devils in form, animated shapes which have been deformed by a wicked spirit. The growth of a larger conception of the worth and nobleness of man came more and more in view because of the Christian religion. There was also a parallel growth of the fiendishness in all whose aims were to dèbase man. These gargoyles (Fig. 167) are the Gothic artists' interpretation of demonology; for they believed that evil spirits took hideous and monstrous shapes when incarnated. One feels glad to see rain-water poured through them to cleanse them; or if this be not serious enough, one rejoices to behold devils fettered to such harmless employment.

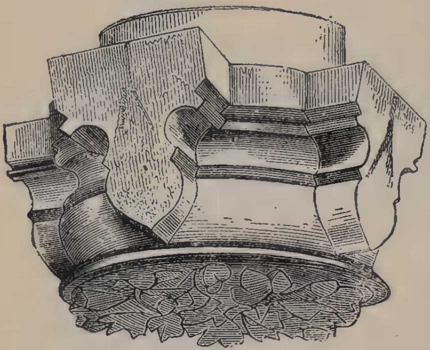
FIG. 167.



GARGOYLE ORNAMENTS.

§ **The Vault's Key-stone.** The vault of the nave allures the eye immediately upon entrance into the Gothic cathedral. The key-stone (Fig. 168) locks together the vaulting ribs. Its face was wrought into beautiful foliage form. Leaf and flower or fruit adorn the crown-stone of the Gothic vault. The massive splendor of the nave-piers, the graceful beauty of the superimposed arches, are but the architect's wonderful steps upward from the ground to this beautiful, and, when size is regarded, insignificant key-stone. It is not, therefore, surprising that the sculptor should linger over its face, and with graver should carve thereon alluring forms to hold the gaze of the eye; for with the key-stone, the builder completed the most daring as well as the most beautiful ceiling which the creative genius of man has ever formed.

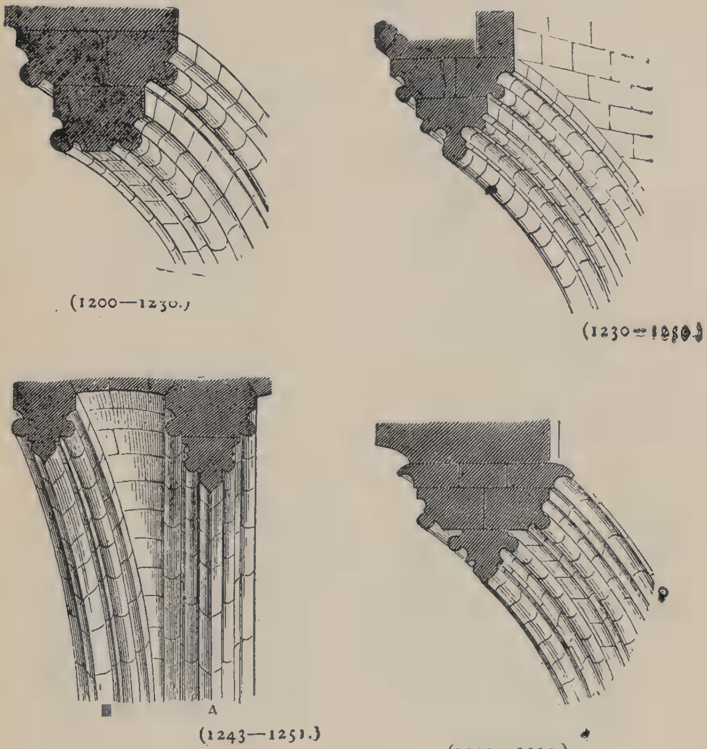
FIG. 168.



THE KEY-STONE.

§ **The Arch-mouldings.** Gothic architects beautified every part which rendered important service in their building, lest, through service, they might become common. Early Gothic arches (Fig. 169) were moulded with a broad soffit below, showing the influence of the Romanesque style (*vide* Fig. 97). But soon the moulding assumed as near a pointed character as rounds and hollows would permit; for the broad soffit below was supplanted by the half-round, and later this half-round was brought to an edge. Hence, the character of these arch-mouldings gives most helpful assistance

FIG. 169.



(1200—1230.)

(1230—1250.)

(1243—1251.)

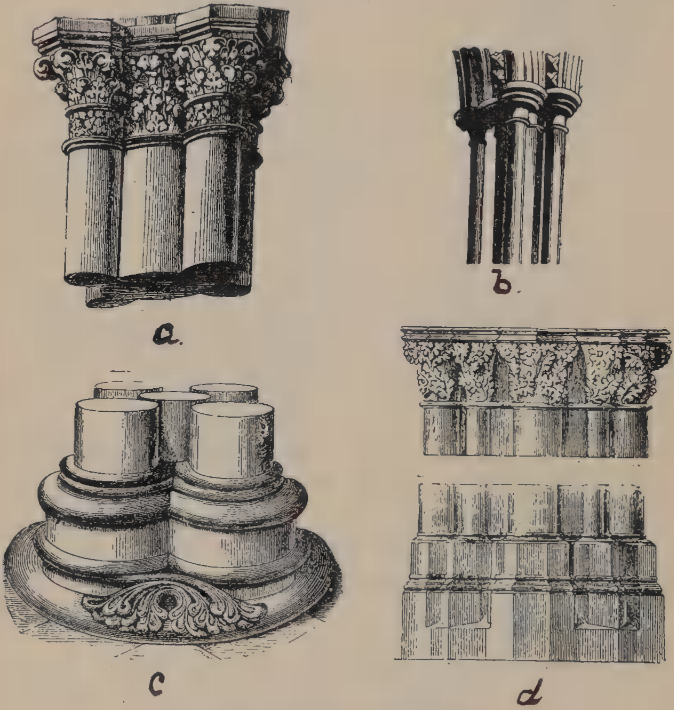
(1320—1330.)

GOTHIC ARCH-MOULDING.

in the determination of the period to which any portion of the building belongs.

§ **The Clustered Column.** There were two types of the clustered column, each receiving many modifications in details. The pier-base in one was a simple circular plinth (Fig. 170, *c*), and each individual shaft had its own separate base, also circular, placed thereon. The other type of pier-base consisted of a polygonal pedestal (*d*) in which was outlined the common base-plinth and the polygonal bases of the pier-shafts. This latter type is the product of the perfected Gothic art. The capitals of these types of piers (*a*, *d*) were exquisitely sculptured, and delayed the eye, as it wandered upward, by their surprising beauty; for beauty always delights when it is made to give charm to the strong.

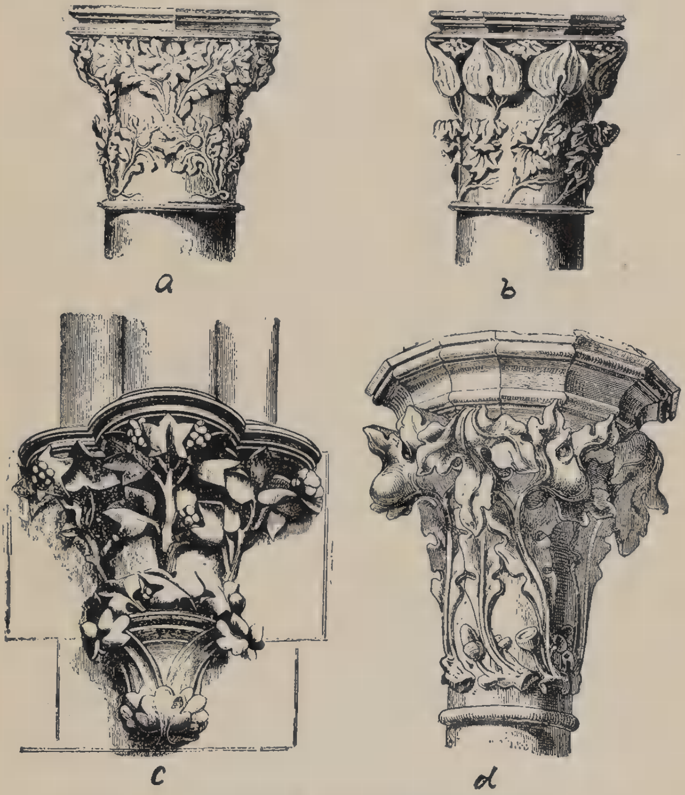
FIG. 170.



GOTHIC CLUSTERED COLUMNS.

§ **Leaf-decoration of Capitals.** Nature is most prodigal in the variety of her foliage. Leaves deeply clefted and lobed, leaves stellate and cordate, she displays before our eyes in such abundance that most pass them by unobserved. The Gothic architects gathered these forms by handfuls, and arranged them upon the capitals. (Fig. 171.) That high refinement and great love of the

FIG. 171.

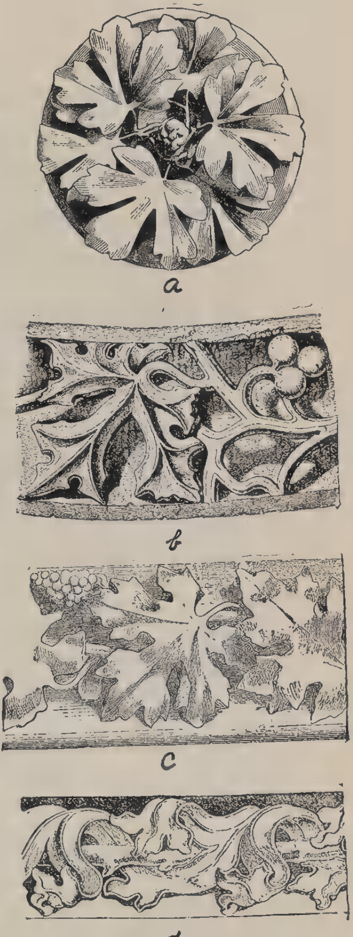


FOLIAGE ON CAPITALS.

beautiful which leads a woman in careless grace to place floral beauties upon her person for adornment, led these Gothic artists to take the lovely forms of leaves and lay them upon the slender capitals in unstudied arrangement, making an enrichment for the heads of Gothic columns more various and not less beautiful than the Greeks secured in the Corinthian capitals. The consol, a kind of bracket, gave support to columnar mouldings. These consols (Fig. 171, *c*) likewise were decorated with foliage. A late Gothic capital (*d*) shows how new effects were sought, simply by the distortion of natural forms, amounting almost to annihilation of them; for no oak-leaf ever grew with such length and ugliness as is here shown, nor was acorn ever produced in such uncanny ways.

§ **Leaf-decoration in the Frieze.** Foliage, flower, and fruit we see in the Gothic cathedral, wrought, by graceful imitation, into stone. Leaves and running vines, with their foliage and fruit (Fig. 172, *a*, *b*), were placed in the frieze, and gave to the eye the sight of those forms of nature which awaken always the sense of pleasure. Indeed, there was at times a naturalness in these imitations which afforded one of the many surprises presented in the Gothic nave. The curvature of the stem on the vine-leaf (*c*) is an imitation; so, also, is the veining of this leaf and its deep clefts; so the young grape-cluster has in nature just such a compact mass as is here sculptured. But nature never laid leaves along a vine-branch after this fashion. It is not the manner of growth, but the forms grown, which we see. Beauty is in these forms. The Gothic sculptor was true to nature as long as his architectural faith permitted. Thereafter he obeyed the laws of his faith. Hence it was no slavish imitation, for the sculptor exercised his freedom to modify. Sometimes there was no attempt at imitation. Leaves of just such shape as are seen in the frieze marked (*b*) or (*d*) never grew; but the veining is here, and so is the attachment of the leaf-stalk to the vine. These Gothic artists, in their noblest endeavors, made vines which seemed to bend, not to be bent; which seemed also to be ready to spring to another place as soon as the tendrils became unfastened. Infinite painstaking is present in all this labor, and united with it, a love of beautiful forms. It is also the handiwork of man: each leaf was carved out by human skill. No mould was made to cast out, from its tireless self, innumerable similar oak-leaves or similar vine-sections. No, for it is the work of men, and each laborer gave some different modification to the leaves, making them to have endless minor differences, just as the leaves, plants, and trees in both field and forest.

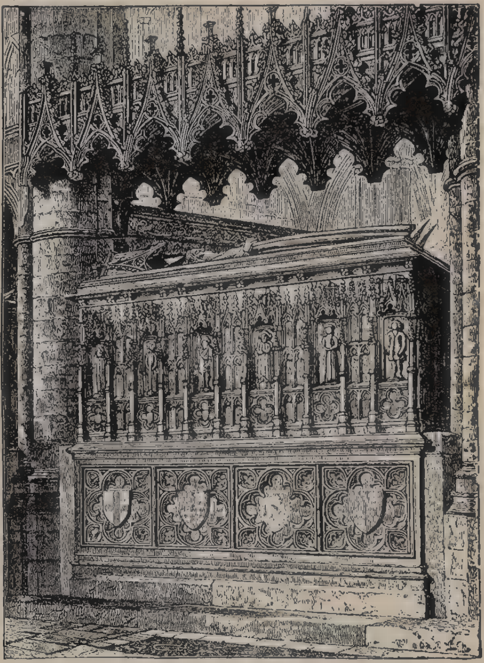
FIG. 172.



FOLIAGE IN THE FRIEZE.

§ **The Place of Sepulture.** A walk along the side-aisles of a Gothic cathedral brings us face to face with two great and associated thoughts belonging to this age of Gothic architecture. One of them is expressed in the chapels for prayer, those beautiful oratories which line the side-aisles, generally of the choir, sometimes of the nave. Worshipers went into the nave from these places of prayer, or they left the nave to enter into them for meditation and prayer. The second thought is expressed in the place of sepulture, sometimes being beautiful chapels, containing stately monument, adorned

FIG. 173.



with the choicest work of artists; at other times being a large stone tomb, built between columns. Fig. 173 presents the tomb between columns. As a work of art, first of all, the geometric ornamentation is to be observed, as well as the forms of pointed architecture, used simply as decorative details. The tomb has a base which is a huge stone, or, perhaps, encrusted masonry, sculptured without with foliated figures, each containing some heraldic shield. Above is the body, a great hollowed stone, little less in size than the base, but with paneled work, which forms niches with pointed canopies above them. The lid is surmounted with the effigy of the dead. This is a bishop's tomb. Kings and emperors were interred with surroundings of no greater magnificence.

§ **Résumé.** Before those special characters are considered which are found in Gothic architecture because of the taste and genius of the various nations who received it, great advantage will be gained by reviewing those general features which are common to the pointed style, as they are combined in some one of the most perfect Gothic cathedrals. Fig. 148 is such an edifice. The ground-plan is cruciform. The lofty nave and transepts have at their crossing a lantern, which harmonizes beautifully with the noble spires of the western façade. The choir, the transepts, and the nave are all strongly buttressed and further strengthened by flying buttresses. The type is new. The edifice effects its own marvelous influence upon each beholder. The first glance lingers at the two mighty towers, which are square throughout its three lower stories, and the fourth is octagonal. The spires above are constructed upon this story by means of eight ribs, meeting at the apex, and having the intervening triangular spaces filled in with perforated tracery. The towers are pierced with window-apertures in their several stories, and assume, in consequence, that remarkable charm which is ever present when strength is recognized as belonging to an apparently fragile construction. The church, an inclosed and roof-covered cross, is within the tall-towered archway, which is the main entrance. A walk around the church reveals the inclosing walls of the aisle and nave, pierced with narrow and high-pointed windows. Thus the greatest possible provision is made, consistent with stability in the structure, to flood the aisles, nave, and choir with light. The Gothic church, as seen from without, is a marvel of constructive skill, fashioned into a form replete with grace and beauty. It is unique and peerless among architectural works, having only in the Romanesque style a faint yet true prophetic anticipation. The church throughout is imbued with the spirit of Christianity. It reaches daring heights; it presents indurate stone transformed into graceful shapes, and combined so as to be clothed with beauty. It is a most fitting type of that religion which can build into the new and perfect man all who are wrought upon by the grace and power in Jesus the Christ.

Chapter VII.

GOTHIC ARCHITECTURE IN EUROPE.

§ **Civil Powers and the Papacy.** Gothic architecture had its development after the great civil powers of France, England, Germany, and Italy had wrung great concessions from the pope. Indeed, the Papal Church was now a divided Church, being separated into the national Churches of France, England, Germany, and Italy. Each branch recognized the pope as its head; yet the clergy of each branch was compelled, by the State in which it was confined, to do homage to the ruler in all matters of a civil character. The national feeling became strong; national interests swayed the popular mind. Ecclesiastical affairs, in consequence, assumed a national aspect, and, in so far as the pope represented the policy of any nation, he awakened antagonism from the other national Churches. Gothic architecture was accepted everywhere as a new style, and received in each nation a development which reflected the national life and spirit.

§ **The City and the Cathedral.** The century included between 1130 and 1230 was the first great era of modern civilizations. The people had obtained civil government; they had broken the fetters of feudal tyranny. Cities, not feudal lords, were the dominant factors in the body politic. The cities had accepted civil and religious government. They were equally loyal to both forms when the representatives of each ruled well within its own sphere. This period was one of great growth; priests were taught the limits of their authority; princes learned that they were accountable to the people, the dispensers of justice, and not their tyrants. The new theory was that rulers, civil and ecclesiastical, were the most distinguished servants of a people for whose service the people gave in exchange wealth and honor. The people were full of joy in the new order of things. It was in this time of gladness that they built cathedrals, the throne-churches of the bishop. If Gothic architecture is unsurpassed as architecture, if it wrought out of stone almost incredible results, it is to be remembered that this architecture appeared when the State and the Church became the educators of the people upon principles of equity.

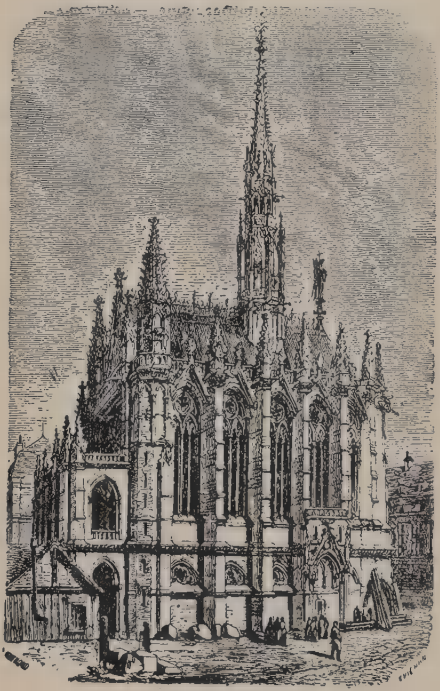
I. IN FRANCE.

§ **French Gothic.** Many lovely cities of France possess, each of them, a cathedral which was built new or reconstructed under an enthusiasm for Gothic architecture. Twelve cathedrals were entirely rebuilt in the seventy years between 1130 and 1200, and by the middle of the 13th century most of the great cathedrals were in process of construction, if not completed. France, therefore, proffers us best facilities for the study of Gothic architecture. Here may be traced the steps leading to the formation of the oblong Gothic vault; here are found chapels which seem but walls of glass, supported by beautiful buttresses; here, too, the flying buttress first made the daring leap over two side-aisles to the nave-wall; and here we find the loftiest naves and western façades of most perfect beauty. The love of beautiful and striking combinations has ever made the French leaders in the world of fashion; the same love inspired them in their cathedral-building, and easily placed them leaders in the nobler realm of Gothic ecclesiastical architecture.

§ **The Oblong Gothic Vault.** The earlier cross-vaults, and, indeed, those ribbed vaults in which the semicircle was used, frequently fell in because they had so little height or were insufficiently buttressed. The substitution of the pointed arch for the round arch gave greater height to the vault and reduced the lateral thrusts. The Abbey Church of St. Denis (1140) shows, in the oldest part of the choir, a vault constructed with pointed arches for the wall-ribs and the cross-ribs; but a round arch was employed for the diagonal ones. The vaulting bay was square. The Notre Dame of Paris (1164) introduced the hexapartite pointed vault over the square bay. Thirty years afterward (1194) we find, in the Cathedral of Chartres, the oblong Gothic vault. The bay of the Gothic vault thereafter was a rectangle, made by making the intercolumniation less between the nave-piers. The vault itself was four-parted. The filling-in of the triangular spaces of the vault was accomplished either through horizontal courses, as in the dome-vault, or by courses parallel to the ridge, as in the cylinder vault.

§ **The French Gothic Chapel.** A most beautiful example of French Gothic is presented in the Sainte Chapelle, of Paris (Fig. 174), erected in 1245. The church is a double church and simplest in form, being a choir for the priests and a nave for the worshipers. A massive continuous water-table around the building shows the height of the floor to the upper church. Below was the lower church, in which the common people met for service. The upper church is built between buttresses. The southern side is given in the engraving. The western façade has two engaged towers at its sides, completed with low spires. A porch is built before it, and above the porch is a magnificent rose-window. Four large windows between buttresses inclose each side of the nave, and the choir is semicircular, having seven lancet-windows in its walls. The spire above the junction of the nave and choir was built in the present century, to replace the original one. The windows give ornamentation to the side, for the buttresses are plain, being divided by simple water-tables. Rich decoration begins above the windows: First come the crocketed window-gables, then the open-work of the parapet, then the pinnacles of the buttresses, and then the spires. The pious Louis built this splendid chapel to receive the original crown of thorns, which he had purchased of Baldwin, Emperor of Constantinople. Each western spire has sculptured upon it, half way in its height, a crown of thorns, thus indicating the sacredness of the church. The crown of thorns, as that one worn by the Christ, was an imposition; yet the love of Louis was genuine, and the place

FIG. 174.



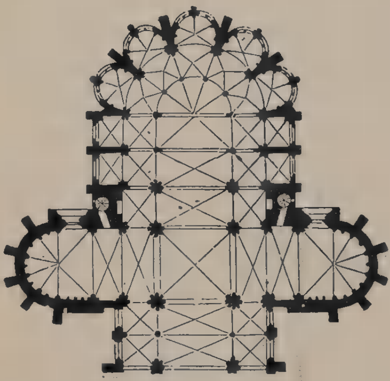
SAINTE CHAPELLE, PARIS.

this chapel has in Gothic architecture is a most fitting reward of this love; for this chapel was the edifice which suggested the chiefest splendors in the nave of the finest Gothic cathedrals. An architect need but remove the floor of the upper church, and complete the lower pointed windows as arches, and place aisles about the nave, over which the flying buttress leaps to the nave, and the great cathedrals are constructed in miniature.

§ **Window-tracery and Stained Glass.** The windows of the Sainte Chapelle are the three-in-one style of tracery. The expression means that under each larger pointed arch there are two smaller ones. This is the purest and best Gothic tracery. The transition from this style to the flamboyant was not difficult. The change expelled the beautiful foliated form above each pair of pointed arches, and extended the curve of the pointed arches as a double curve in order to fill up this space, and then the forms of the flamboyant tracery began to appear. The lambent dartings of this tracery pleased only when taste had become degraded. Perhaps we best indicate the gorgeous splendor given to these windows by means of stained glass. The windows of the nave and choir are fifteen, and in them are portrayed the creation of the world; the fall of man; the history of the patriarchs; the history of Moses; scenes from Judges, Joshua, and Ruth; the history of the three great judges; the prophecies of Isaiah; histories of John the Evangelist, the Virgin, and the infancy of Jesus; the life, death, and resurrection of Jesus; the story of John the Baptist; the prophecies of Daniel, of Ezekiel, of Jeremiah. These, and more events connected with the Christian religion, are set forth with brilliant colors in these windows, and the devout feel it to be most appropriate that those whose lives and deeds have inspired the human race for centuries to holy faith in God are worthily clad in raiment, by Gothic artists, more beautiful than the vesture of kings and princes.

§**The French Gothic Cathedral.** The French cathedral is cruciform, and its nave and choir are surrounded by single or double aisles. A marked peculiarity in these cathedrals (Fig. 175) is the choir-chapels. They are built between the buttresses, usually polygonal in form and richly decorated. They were depositories for the relics and treasures of the church. One thought constantly obtrudes itself among the surprises which meet an observer in his walk about the choir, inspecting these chapels, a thought that will not down; namely, that modern nations are indissolubly connected with the Christian religion. Costly monuments of kings and princes adorn chapels of sepulture in most of the Christian cathedrals. The French built cathedrals of most imposing dimensions. The length of Amiens is 521 feet; that of Rheims, 430 feet. All the smaller cathedrals are above 330 feet in length. A side view of Notre Dame (Fig. 176) will be most instructive, as it will exhibit one of the earliest attempts of Gothic architects to buttress the lofty walls of the nave. Consider the magnitude of this structure. The

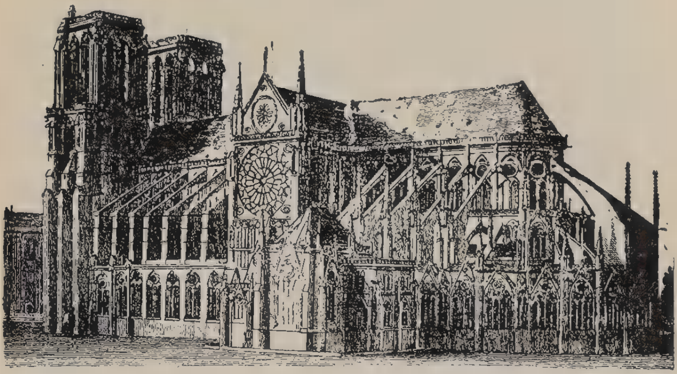
FIG. 175.



PLAN NOYON CATHEDRAL.

roof is 356 feet in length; the width at the transepts is 144 feet; the ridge of the roof is 152 feet above the ground, and the towers rise 204 feet high. Flying buttresses, fronted by pinnacles, leap to the triforium and clerestory; their upper faces are straight lines, and their side faces are not pierced with foliated figures. The windows of the choir-chapels are completed with the crocketed gable in the manner of the perfected Gothic. The southern façade is in view, and we see in the transept a great rose-window. Bas-reliefs ornament this southern portal. Here the history of St. Stephen is cut in stone, presenting him both as teacher and as martyr. These cathedrals are always magnificent museums of Christian art, and, for the devout, they may become places of Christian worship.

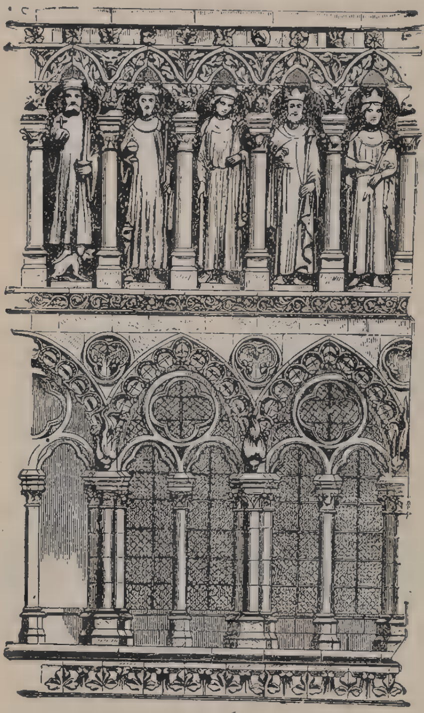
FIG. 176.



NOTRE DAME, PARIS.

§ **The Triforium's Beauty.** Each great Gothic church has its own peculiar charms in the triforium, and acquaintance with one form excites interest in all, for we see how much the architect loved this division

FIG. 177.

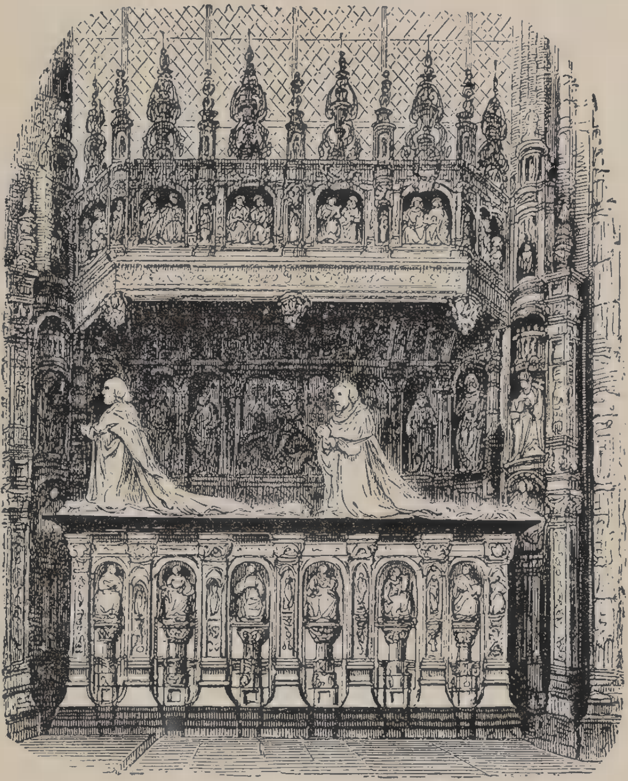


FROM CATHEDRAL OF AMIENS.

of the nave-wall. The example (Fig. 177) is transitional, showing the influence of the Romanesque style. Within the pointed arches of the gallery are round arches; the circle also is prominent in the arch's head. Not one high arcade, but two low ones, make the filling-in of the triforium space. Leaves, vines, rosettes decorate respectively the lower, middle, and upper frieze. Statuary adorn the spaces in the upper arcade, and colored windows the spaces in the lower. Great painstaking is apparent in order to render the triforium beautiful. The French artist retained uniformity in the arches and ornamentation of the arcades; but, in the pose of the figures within the upper arcade he gave the variety which ever accompanies an assemblage of persons in life.

§ **The French Gothic Sepulcher.** France has interred many of her illustrious dead, civilians as well as ecclesiastics, within the sacred precincts of her cathedrals. The visitor to these revered places may not inquire into the excellence of all of the lives of those who find the last resting-place within the sacred edifice.

FIG. 178.



FRENCH GOTHIC CHAPEL.

Enough is it for all to know that those who lie here entombed have been found worthy by the authorities of the Church for this honor. The sepulcher (Fig. 178) is late Gothic, a return to the earlier noble Gothic styles.

Yet it is impressive. Statuary, with columns for pedestals, beautify the aisle-front of the tomb; the walls of the chapel are niched for the reception of statuary; the canopy above the tomb is tabernacled, and in the cells is statuary. In this chapel for the dead the human figure is employed both as symbol and as ideal portrayals of eminent saints. And, as if to instruct us, kneeling figures, with clasped hands and with faces toward the altar, are placed upon the tomb. Surely this is no parade of art, but an earnest endeavor to teach that death may be best met when the memories of saintly lives are present and the attitude of the human heart is that of prayer.

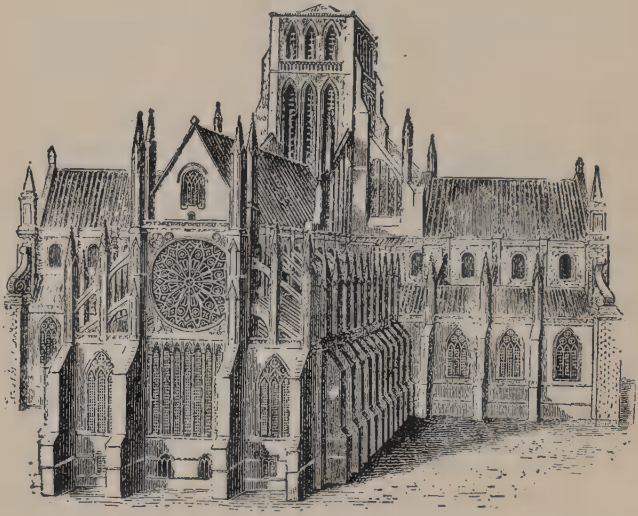
II. IN ENGLAND.

§ **The Parliamentary Constitution.** The struggles which limited the English royal power were coeval with the rise and progress of Gothic architecture in England. John confirmed the Magna Charta in 1215, which was wrested from him "by a combination of all classes of free subjects, and it gave rights to them all." Yet three centuries of conflict were necessary to interpret to the English nation this greatest of civil documents. The clergy, the barons, and the traders secured the concessions of the charter from the king. The limitations upon the kingly prerogative gave increased powers to the ruling classes, both civil and ecclesiastical. Hence, later kings espoused the cause of the people, in order to curb the influence of ecclesiastics and barons, and there resulted, out of the long period of struggle, an English nation under a constitution. The Romanesque architecture was built when the Saxons were being brought to submit to the Norman conquerors, and these Norman rulers were being taught the language of the conquered people. Not strange is it, then, that in the period when kings and barons of Norman lineage had learned to love most the English nation, a new style of architecture should modify those ecclesiastical structures which stood as witnesses to times when the foreign king and baron loved the land of their birth above the country which they had won by the sword. Hence, many English cathedrals are a mixed Gothic.

§ **Intermixture of Styles.** Some Norman cathedrals, such as Durham, Norwich, and Oxford, present changes in the interior only through the introduction of the Gothic vaults. A more striking modification is where the Norman nave, with its strength and redundant beauty, is completed with the graceful Gothic choir, abounding in the charms of lofty pointed arches, and flooded with sunlight softened into colors by magnificent Gothic windows. Gloucester and Ely and Hereford are examples of this change. Peterborough Cathedral is Norman entire, except the western façade, which is early Gothic, and the second choir, which is built in the late Gothic style. Sometimes a Norman structure was untouched in its general form, but on all surfaces where Gothic features could be introduced as ornament, the architect placed them, even though he effaced Norman decoration. Such change the Cathedral of Winchester underwent, and presents now a Norman edifice, decked out with the details of the perpendicular style. Thus the Gothic style laid its hand upon most of the noble Norman cathedrals.

§ **The English Gothic Choir.** As compared with Romanesque choirs, all Gothic choirs have greater length. And because the English Gothic architect avoids in his structure such daring altitudes as are reached in the cathedrals of France and Germany, the length of English cathedrals becomes much more noticeable. Certain peculiarities are immediately discernible by considering the choir and transepts (Fig. 179) of old St. Paul's Cathedral, London. The transepts are most prominent. The buttresses and flying buttresses excite no special attention, for they seem to be doing no remarkable service, since the nave is low. Often the flying buttresses of cathedrals were built beneath the roof over the aisle, thus declaring that they assumed no important place in the mind of the architect as a decorative feature of his building. The square termination of the choir, however, commands notice. It seems a wall of glass; below there are seen seven tall, slender, pointed windows, and above them a magnificent rose-window. Again, the square tower over the crossing is a peculiar-

FIG. 179.



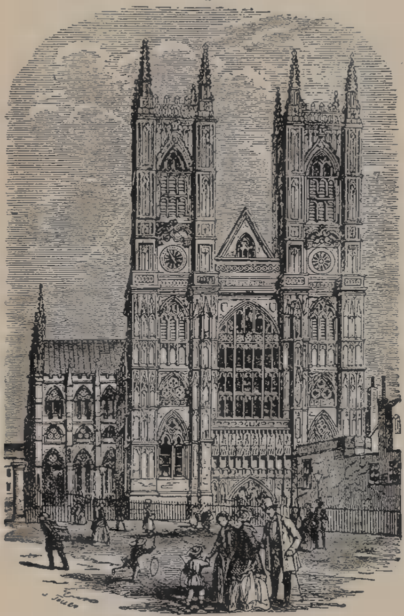
OLD ST. PAUL'S CATHEDRAL.

ity of English Gothic. As seen from the interior, these towers form lanterns above the crossing, and add a new beauty to the surroundings of the choir. Yet they contribute most effectively to the impression of the English cathedrals as made upon the observer when viewed from without. Canterbury, Ely, York, Lincoln, Durham, and Gloucester have the square tower above the crossing. Salisbury, Lichfield, and Chichester have these central towers completed with spires. They all were erected in the fourteenth and fifteenth centuries, and have the decorative elegance which is characteristic of Gothic architecture in those times.

§ **The Second Choir.** The length of the choir sometimes equaled the length of the nave in English cathedrals. At least it seemed so when one viewed the exterior. Sometimes this increased length was secured by the addition of a chapel to the choir; as the Chapel of Henry VII to the choir of Westminster Abbey, or the Chapel of the Nine Altars to the choir of Durham. The termination of the cathedral choir was sometimes marked by a second transept, as in the cathedrals of Salisbury and Lincoln. There is no example of double side-aisles in England, nor are aisle-chapels found. Canterbury and Westminster have apsidal chapels, yet, generally, these chapels were banished from the English Gothic edifice, perhaps because they were too prominent reminders of the Norman style.

§ **Cathedral with Towers.** The harmony of proportion in the dimensions of the great French cathedrals is wanting in the English. The western façade of Westminster, taken by itself, is imposing. Each tower seems but four lofty and beautiful buttresses, which are united into one structure by masonry, forming pointed and circular windows. Then these two towers are combined into the western façade (Fig. 180) by the masonry of the porch and that of the great western window. But the far-projecting transept interferes with the pleasing effect of this front. However, this façade is, when taken by itself, a noble structure, and one which has found great favor with the architects; for, in general outline, it is the type for a Gothic front in many of the modern denominational churches. The façade of Lincoln Cathedral is peculiar, being a high screen, higher than the eaves of the nave, extending north and south beyond the boundaries of the nave, and pierced with lofty Norman doorways. With its paneling and the polygonal terminations at the north and south, the front is imposing, and its effect is increased by the two western towers of the nave, rising above it high in the air. The western façade of this cathedral is simply a transept, terminating the nave at the west, and may, perhaps, add to the general impressiveness of the cathedral when viewed from a distance.

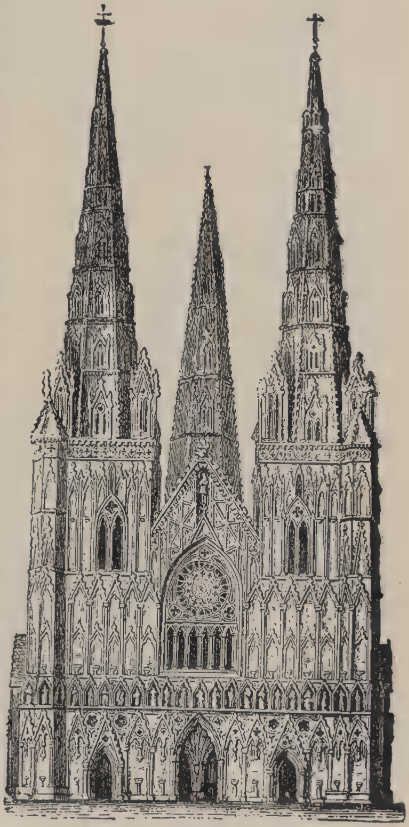
FIG. 180.



WESTMINSTER ABBEY.

§ Cathedral with Spires. Gothic architecture in theory completes all its towers with spires; yet comparatively few English cathedrals have spires, as some have been removed, and others were planned, but never built. The Cathedral of Lichfield (Fig. 181) has spires upon the western towers and the central one. It is a beautiful example of English Decorative Gothic. The towers are majestic, not the portals which pierce them; the arcading pleases, but creates no surprise; the great western window, however, comports well with the majesty of the towers. The splendor and the size of the portals occupy the thoughts of an observer as he enters into the great European cathedrals, and these portals exclude the porch-idea. But English cathedrals have portals which seem insignificant, though beautiful; but they admit into a porch, which surprises with the beauty of its

FIG. 181.

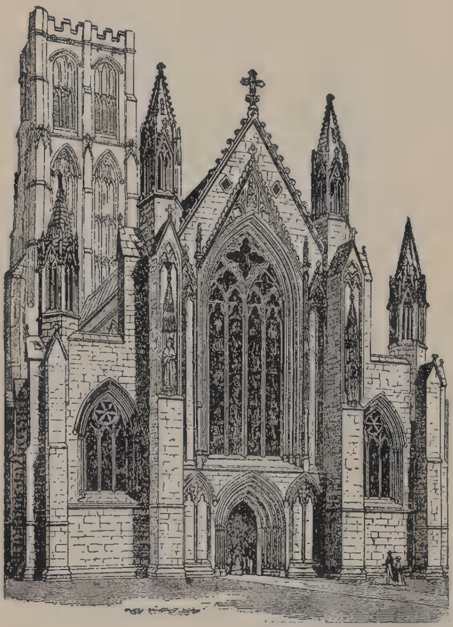


LICHFIELD CATHEDRAL.

vaulting and the richness of its sculpturing. Inclement England as compared with sunny France, may, perhaps, account for the development, among the English, of the porch rather than the portal in their cathedrals.

§ **Parish Church with Central Towers.** Most attractive, indeed, are the small English Gothic churches. The Howden Church (Fig. 182) was built in 1310. The essentials of the Gothic structure are readily recognized. There are four great buttresses in the western façade; the two central ones have on their surface Gothic tabernacles for statuary, and each is completed with a beautiful finial. The portal is deeply recessed, and above it is the great Gothic window, with long, slender mullions and striking quatrefoils. The triangular-crocketed hood is above it. The proportions in this parish church are better than in a cathedral. The Gothic parish churches without towers are many in England. They are finely

FIG. 182.

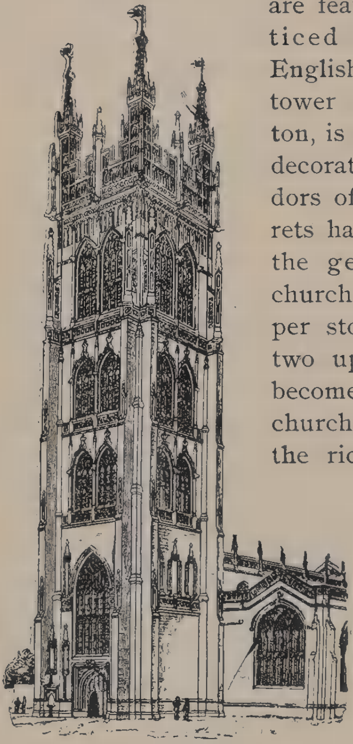


HOWDEN CHURCH.

adapted to the forms of worship in the Established Church; for the Anglican Church retains the altar-table and a variety of services by the side of and before the altar. Hence the plan of a parish church, which suited the needs of worship in the fourteenth century, meets all the demands of the Anglican Church in the nineteenth century. A century later the eastern tower was erected. The utility of the tower as a belfry, not its peculiar fitness to awaken admiration as an architectural feature, seems to have designated its position at the choir; for to the architect the buttress, with its tabernacles and finials, the portal and western windows, had more charm than the height and the massive strength of the tower. A century later, taste had changed. Perpendicular Gothic reigned, and the beauty of pointed Gothic gave place to the depressed Tudor arch; but the tower, with its strength and added beauty, survived.

§ **Parish Church with Western Tower.** Constructive unity in the whole edifice was attained by Gothic architecture in the Fotheringay Church (Fig. 157), which has the western tower incorporated in the structure. There is also harmony of proportions: its length, breadth, and height combine with the dimensions of its simple, strong, beautiful tower, and produce a building most attractive and churchly. Another type of the church with western central tower is shown in St. Mary's, of Taunton (Fig. 183), built about 1500. The nave has no clerestory; its roof is elevated but slightly above the roofs of the aisles. Hence, the body of the church is low. The windows are broad, occupying most of the space in the side-walls. The tower is external to the nave, not incorporated in the structure. The western face of the tower has a great pointed window in it, above the deeply-recessed portal. Light enters through it into the nave. The low nave and the large western window before it are features which we have noticed as characteristic of the English cathedrals. The lofty tower of St. Mary's, at Taunton, is profusely elaborated with decoration, and the gay splendors of its battlements and turrets harmonize but poorly with the general plainness of the church. If we remove the upper story of the tower, or the two upper stories, the church becomes similar to many parish churches of England with which the richest associations of the English people are connected; for the Protestant Reformation developed a rich religious life in England, produced the liturgy of the English Episcopal Church, formed the incomparable litany in its prayer-book, and made parish churches the principal religious homes of the people for centuries.

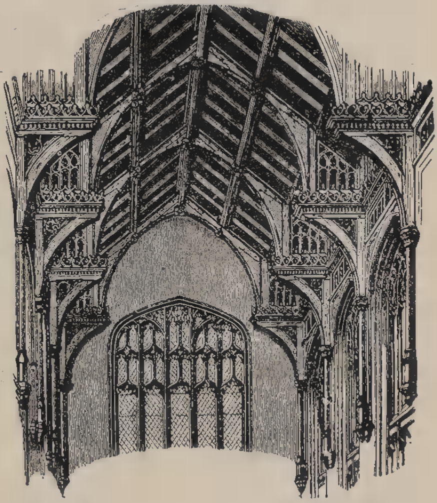
FIG. 183.



ST. MARY'S, AT TAUNTON.

§ **English Gothic Ceilings.** The multiplication of ribs, and the insertion of minor ones, formed with the ridge net-like patterns on the stone vault. This ramiform vault (*vide* Fig. 154) is found, with beautiful variations, in the Cathedrals of Exeter, Gloucester, Winchester, and several others. From this vault the fan-shaped vault (*vide* Fig. 155) is a natural development, and is found especially in chapter-houses and a few chapels. The pendant-vault (*vide* Fig. 156) is a variety of ceiling which was carried out with most remarkable effects by the English architects. But perhaps in the wood ceilings which they constructed, the English far surpass other nations. The hammer-truss beam (Fig. 184), not alone transferred the strains of the roof low down on the wall, but was made a most strikingly decorative element. The French were the first to bring the buttress into a most distinguished ornamental feature; the English may claim priority in bringing the truss-beams of the ceiling into most beautiful decorative aids. The parish church presents many varieties of the wooden ceiling, often having the beams most richly carved. The interior, rather than the exterior of an English church, received ornamentation. The foliage in the capitals and corbels were well shaped and deeply incised, standing out clear from the surface. The inner curve of an arch was adorned with cusps of various

Fig. 184.



ST. STEPHEN'S, AT NORWICH.

designs. Later, the paneling of surfaces became the custom. And one feels, when within these English cathedrals and churches, that their beauties are near by, for their naves do not astonish by their wondrous height, but charm by the loveliness all around and within reach. Fitting instructors they are to all believers that good works are to be done near by in the ordinary walks of life.

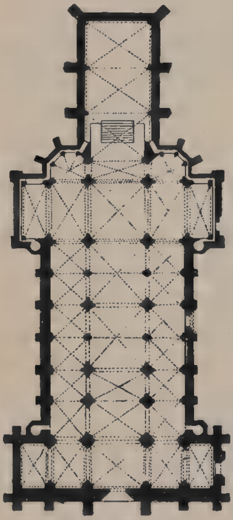
III. IN GERMANY.

§ **The Decay of the Sovereign's Power.** The age of Gothic architecture was coeval with the decline of the emperor's power in Germany. Frederick II gave to the spiritual princes in 1222 a legal right to their usurped dominions, "agreeing not to introduce into their territories, without their consent, new coinage, or customs, or tolls." Fifteen years later he granted the same rights to the secular princes. A few years prior to these concessions, the right to choose the emperor was transferred from all the immediate nobles to the spiritual princes, officially known as the archbishops of Mainz, Cologne, and Treves, and to the secular princes belonging to the houses of Wittelsbach and Saxony, the margrave of Brandenburg, and the king of Bohemia. The Golden Bull, issued in 1356, gave clear definition to these electorates and their rights. By this bull three spiritual electorates were confirmed, belonging to the archbishops of Mainz, of Cologne, of Treves, and four secular electorates, belonging to the king of Bohemia, the Rhenish palsgrave, the duke of Saxony, and the margrave of Brandenburg. The electors were invested with full sovereign rights within their territories, and their subjects were allowed to appeal to the imperial tribunals only if the administration of justice should be refused. The territory of an elector was to be indivisible, and inheritance was based on the principle of primogeniture. These sovereign prerogatives, which were enjoyed by the electoral principalities, awakened envy in the minor principalities, and led to endeavors to secure for them greater privileges. The free cities also wanted extension of powers. The great curb upon the princes was the diet, which was formed in most principalities. The mediate prelates, the mediate nobles, the mediate cities, composed the diet, and these bodies claimed the rights of sanctioning taxation, of advising in matters relative to the expenditure of public revenue, and of demanding the administration of justice. Germany, therefore, was governed by princes, with such restrictions as the diet imposed, and the emperor was sovereign lord only in name.

§ **Transitional Architecture.** When the old order, civil and ecclesiastical, began to change, the greatly beloved Romanesque style began also to assume modifications. The Apostles' Church at Cologne had its interior remodeled by the use of pointed arches and Gothic vaults. The great nave of St. Peter and St. Paul's, at Neuweiler, in Alsace, was transformed into almost a perfect Gothic nave. The transitional churches in Germany are very many; for the powerful hierarchy of the papacy cherished the form of the Romanesque church as evidence, planted everywhere in Europe, of the triumphant march of the patriarch of Rome to a spiritual throne mightier than civil powers. Gothic churches, for a long time, were built after the outward form of the Romanesque, having low walls, small windows, the nave-bay square and corresponding to two bays in the aisle. The ground-plan of the Minster at Schlettstadt will show the influence of the Romanesque upon the Gothic style after the new style had become adopted in Germany.

The six-parted vault (Fig. 185) is used in the nave. The apsidal chapels at the terminations of the aisles are strikingly Romanesque. The awkward extension of the choir shows how the edifice was planned to receive the short choir of the Romanesque. Length in the choir, such as the Gothic demanded, was secured by this clumsy addition. This German Gothic church has a square eastern termination and no choir-aisle. There are also churches in this Gothic style with a western choir. These are all German Romanesque features, and witness, undoubtedly, not alone to the difficulty of the new style in supplanting the old, but to peculiar advantages in the Romanesque plans for long-established features of worship in Germany which were more difficult to change than are architectural plans.

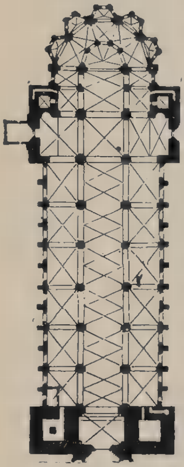
FIG. 185.



PLAN OF CHURCH AT SCHLETTSTADT.

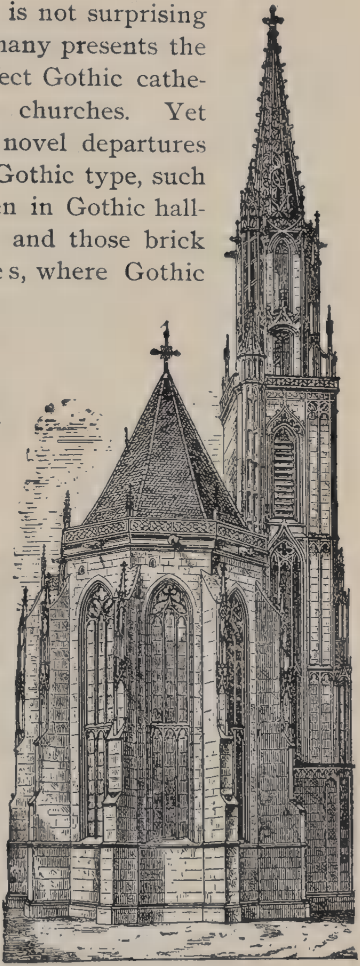
§ **German Gothic.** Gothic architecture in France and England had passed into the decorative period before a distinctively Gothic building was erected in Germany. The ground-plan of Magdeburg Cathedral (Fig. 186) is the German early Gothic. The symmetry of proportion is like that of the French early Gothic. The German architect retained the choir-chapels and the choir-aisle as heirlooms from the Romanesque style. Germans began to build Gothic churches with the ideals of the French decorative Gothic in mind. This fact accounts for the comparatively few Gothic edifices belonging to the early period in Germany. With these advantages it is not surprising that Germany presents the most perfect Gothic cathedrals and churches. Yet there are novel departures from the Gothic type, such as are seen in Gothic hall-churches; and those brick churches, where Gothic ornamentation in the western façade consists of slender buttresses, rising above the roof, with the intervening spaces embellished with geometric patterns rather than with pointed arcades and crocketed gables and finials.

FIG. 186.



PLAN MAGDEBURG CATHEDRAL.

FIG. 187.

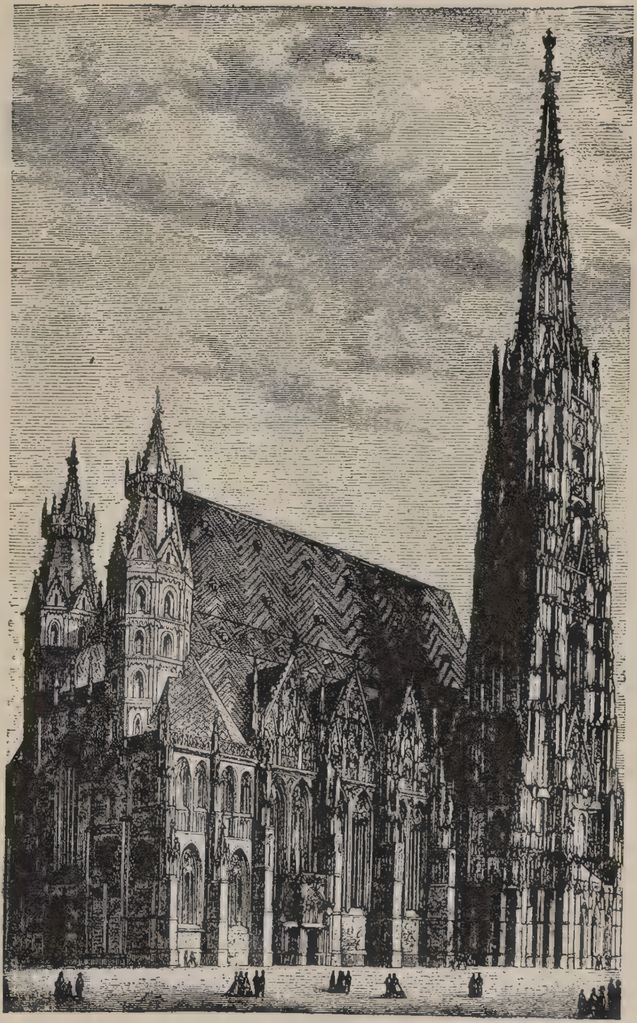


CHURCH AT THANN.

§ **Gothic Parochial Church.** The beautiful church at Thann (Fig. 187) is composed of a nave and choir without transepts. It is as if the upper church of the lovely Sainte Chappelle, in Paris (*vide* Fig. 174), were set upon German soil, with the addition of an essentially German Gothic spire, placed at the north corner of the western façade. The church was built in the middle of the fourteenth century, the tower about two centuries later. The whole edifice exhibits most remarkably the Gothic features which may be retained in a small edifice. The nave and choir constituting the church are inclosed by tall and narrow Gothic windows, separated by buttressed piers. These buttresses are made slenderer as they ascend; the divisions are marked by water-tables. Tabernacle-work adorns the upper stage. Gargoyles, parapet, and pinnacles are retained, and also the steep roof. The tower seems but four massive buttresses, so united together as to form pointed openings, and these buttresses are paneled with the pointed arch. The lower stage of the spire is an octagon, with four of its sides turned into ornamental corners, and the remaining four are treated as window-apertures. A pyramidal termination completes the spire, being beautiful and open tracery-work. This style of church is most attractive, and is the Gothic church which readily accommodates itself to any of the forms of Christian worship in our day.

§ **The Gothic Hall-Church.** The Church of St. Elizabeth, at Marburg (1235), marks the first appearance of the type known as the hall-church. The common features in them all were the absence of shed-roofs over the aisles, the absence of a clerestory, the absence of flying buttresses, all of which departures from the ordinary Gothic edifice, as seen from without, may be traceable to the internal arrangement, according to which the side-aisles had the same height as the nave. The Cathedral of St. Stephen's, Vienna (Fig. 188), is the finest example of this type. The western façade is dwarfed by the high, steep roof, yet the front would be most imposing and novel before a nave which harmonized with its

FIG. 188.

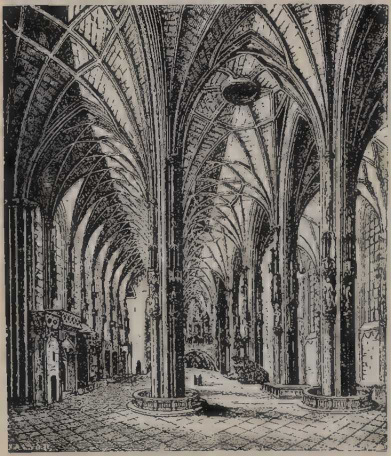


CATHEDRAL OF ST. STEPHEN'S, VIENNA.

proportions. The side-buttresses are massive, and between each pair two pointed windows are built, whose arches reach the height of the eaves. A gable, richly decorated, rises above each pair of windows, and gable-roofs extend from them to the great roof of the nave. The spire tapers from the ground upward to its summit. The example is the noblest of this type.

§ **Interior of a Hall-church.** Piers, lofty arches, and a high ceiling met the eye as one gazed along the nave of the hall-church. The beauty of the triforium, the beauty of the clerestory, were wanting. It is true that the piers seemed like branching trees, forming aloft the multi-ribbed ceiling; but this compensated but poorly for the typical Gothic nave with its threefold division. One almost wishes that the nave-piers might be removed and pendant-vaulting be left, that the vast room might be seen without obstruction. Germans in the later period of Gothic architecture were fond of doing the unlooked-for, of effecting great surprises. They made tracery-work which seemed but the twisting of boughs, and even carved bark-knots, which are formed where boughs have been wrenched off. They often made shafts and mullions so slender that one feared lest the weight they carried would crush them down.

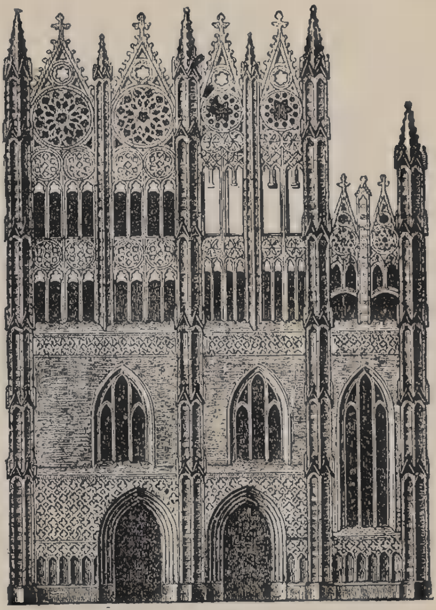
FIG. 189.



INTERIOR ST. STEPHEN'S.

§ **The Brick Gothic Church.** The electorates, and especially the leagues which were formed among the cities and principalities of Germany, exerted great influence upon the development of Gothic architecture. So much so, indeed, that there are some who divide Germany into districts, and find the architecture, comprised in each, to have common characters. Northern Germany is one of these districts, and there sprung up here an architecture built of brick and with most striking ornamentation. The façade of St. Mary's, at Brandenburg (Fig. 190), will exhibit the chief peculiarities. It stands like a great screen in front of the church. This screen is perforated with pointed portals and windows and pointed arcades. Buttresses divide the structure into compartments. Pinnacles and gables, with circular windows below them, complete the upper termination of the screen. The free employment of geometrical tracery on the surface is a departure in Gothic ornamentation in Germany. Then this façade is variegated by means of different colored bricks, principally black glazed

FIG. 190.

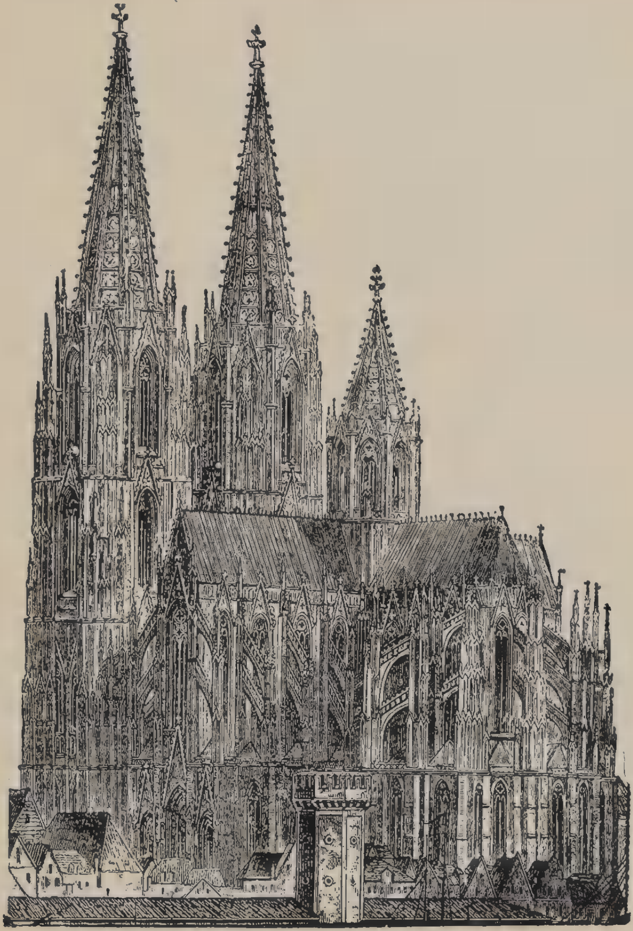


ST. MARY'S, AT BRANDENBURG.

bricks on a background of red. Effects are in this way produced similar to the variegation of Italian façades, through different colored marbles, in many Romanesque churches. Yet some of these brick churches are constructed with simplest ornamentation, and are built in a most attractive Gothic style.

§ **German Gothic Cathedral.** The most perfect specimen of Gothic architecture is the Cathedral of Cologne. Its foundation-stone was laid in 1248; its completion was accomplished in our own century. One has well said that it is "the most magnificent and stupendous edifice ever raised by human hands to the service of the Creator." The plan (*vide* Fig. 127) is cruciform within and without. The nave has double side-aisles; the transepts and the choir have single aisles, and there are choir-chapels. The interior is 421 feet in length, making a splendid vista through the columns of the nave and choir. The breadth is 140 feet; the transept, 234 feet long. The cathedral, according to this plan of most remarkable dimensions, rises from a platform 55 feet above the Rhine, and is the purest and noblest example of perfected Gothic in all the world. Other cathedrals are composite, furnishing the finest specimens of the various styles. Cologne Cathedral received no addition conflicting with its manifest designs. Decade after decade it stood, too magnificent in its demands for the generations of those times to complete. They beheld an incomplete structure, greater unfinished than it could be made with their means and capabilities. Three centuries it remained untouched except as decay and destruction threatened its ruin. But our century rescued the edifice. The liberality of Prussia's king, the genius of her architects, completed the cathedral. All that is noblest in Gothic architecture is here preserved.

FIG. 191.



CATHEDRAL OF COLOGNE.

It is a Christian church full of majesty, so great that, unfinished, men with lesser aims than its originator dared not undertake to bring so colossal an enterprise to completion; so beautiful in its promise that men dared not tear it down. Germany, possessing this perfect Gothic cathedral, may ever claim precedence in the Gothic art above all other nations, for other nations have prophets only in their Gothic edifices; Germany has in the Cologne Cathedral the fulfillment.

IV. ELSEWHERE IN EUROPE.

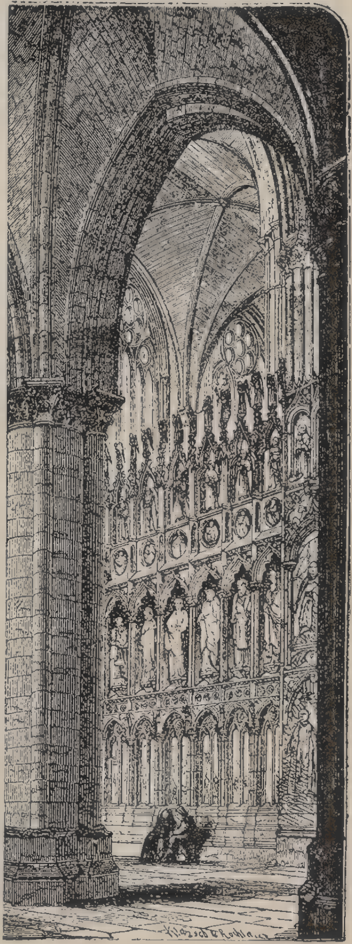
§ **The Gothic in the Netherlands.** Belgium was fertile soil for Gothic architecture. The growing wealth of the burgher was lavished upon civil and ecclesiastical Gothic buildings. France, rather than Germany, furnished the types; yet the remarkable spire of the Cathedral of Antwerp reminds us of Germany spires, surpassing them, however, in gorgeous ornamentation. Departures on the part of the Flemish builders from accepted types were often most audacious, if not pleasing. The seven aisles, counting the nave, in the Antwerp Cathedral is an attempt to astonish by the breadth of the edifice, and this feature is emphasized by the narrow transept. The Cathedrals of Tournay, Brussels, and Malines are excellent examples of pleasing Gothic.

§ **The Gothic in Spain and Portugal.** The fall of Cordova, Seville, and Cadiz, the chief seats of Moorish dominion in Spain, extended the southern boundaries of the kingdom of Castile as far as the sea coast. Granada alone was a possession of the Moors, and it became an ally to Castile. These conquests of the Christians were made before the middle of the thirteenth century. The wealth of these Moors was expended by their conquerors in building the great Gothic cathedrals of that age.

Gothic and Romanesque features were intermixed in a few churches. But imitation of French models soon effected complete freedom from the Romanesque influence, and then there arose later a beautiful Spanish Gothic.

§ **French Gothic in Spain.** The Cathedrals of Burgos and Toledo were nearly contemporary, appearing about 1225. Removing the open spires of Burgos, there will remain a façade, which clearly was inspired by the Notre Dame of Paris. Triple perpendicular divisions, which the buttresses effect, and triple horizontal divisions, are manifest resemblances. The rose-window, above the central portal, is another. A section of the choir, as seen through a nave-arch, in the Cathedral of Toledo (Fig. 192), will serve to indicate Spanish fidelity to the structural principles of the Gothic, when they were merely imitators. The pier is a central column, whereon are half-round mouldings with capitals.

FIG. 192.

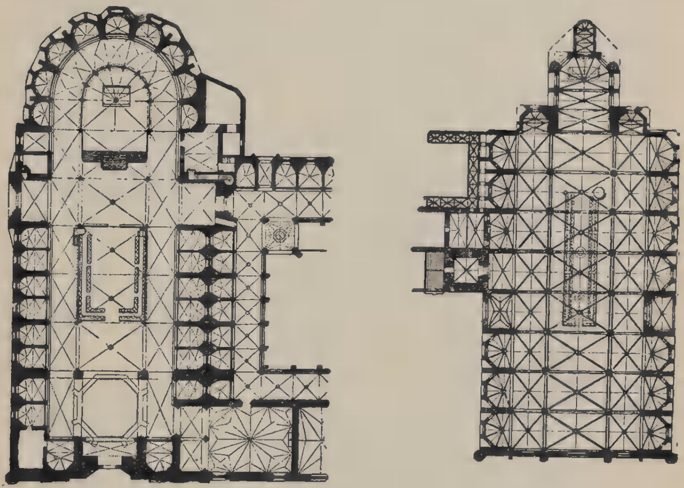


CATHEDRAL OF TOLEDO.

This pier was common in early Gothic. Yet there is seen, also, the clustered pier. The tabernacle work upon the sides of the choir near its entrance makes a very pleasing impression. And, without doubt, there is as great propriety in placing the statues of saints in tabernacles near to the altar as in façades, where they are exposed to the inclemency of the weather. The Christians inherited, not alone wealth from the overthrown cities of the Moors, but acquired, through Moorish architecture, an extravagant taste for architectural adornments. The later cathedrals became more and more loaded down with Moorish Gothic ornamentation.

§ **Spanish Gothic Plans.** The Cathedrals of Barcelona and Palma (Fig. 193) have ground-plans which are most instructive in regard to what Spain has contributed to Gothic architecture. The Cathedral of Barcelona is cruciform within, that of Palma is not; the one has a series of choir-chapels, the other has not. There are in both aisle-chapels. The originality of these plans may be at once recognized by comparing them with two German cathedral plans. The plans of the Cathedrals of Magdeburg and Barcelona (*vide* Fig. 186) should be compared with these. If we remove the side-chapels of the aisles from the plan of Barcelona, there will result a plan essentially like that of Magdeburg. There will be, in both choir-chapels, transepts projecting beyond the nave with its aisles. The difference in both is simply in the ratio of the aisles to the nave. A comparison equally instructive is furnished between the Cathedral of Palma and the Church at Schlettstadt. Remove all the side-chapels of the Cathedral of Palma except two on the north and the south side, there result two plans essentially alike, except that beauty of proportion is with the Spanish cathedral. France may have given to Spain the suggestion of these side aisle-chapels; it is certain however that Spain, through aisle-chapels, made harmony of proportions in her churches, and gave her cathedrals a new and quite original feature. A consideration of the Cathedral of Seville, built in 1401, will further confirm this observation. This cathedral is of colossal size, being 415 feet long and 198 feet wide. The plan is a single rectangle. The nave is 56 feet wide. There are two aisles on each side of the nave, and, in addition, aisle-chapels. The many rows of uniform piers, diminishing in height as the side-chapels are brought in view, awaken a remarkable feeling of vastness.

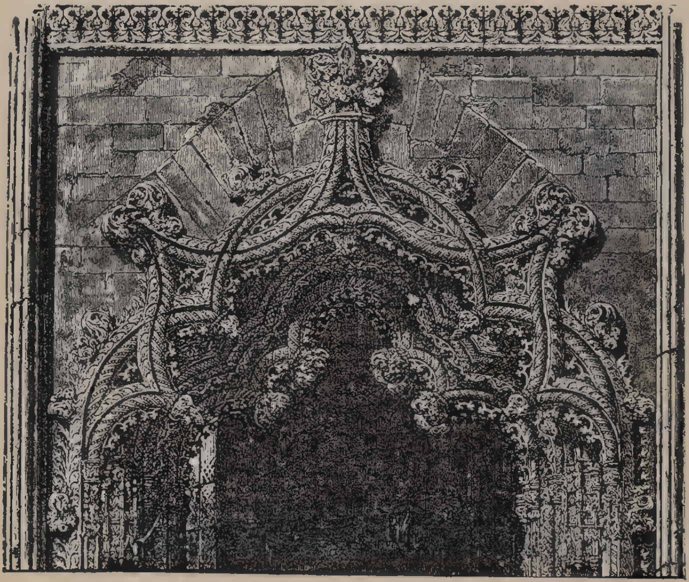
FIG. 193.



CATHEDRAL OF BARCELONA. CATHEDRAL OF PALMA.

§ **Gothic Decoration in Spain.** Later Gothic in Spain is too excessively embellished. It could not have been otherwise, for the elaborate decoration of Moorish architecture incited Christian artists equally to beautify Gothic cathedrals. Vaulting ribs were made to form almost arabesques upon the ceilings. Broken and compound curves were woven together above doorways, giving decoration, but defying all principles of structure. Lines were looped into exquisite shapes; spiral lines crept along the round mouldings; curved lines made arabesque bands on surfaces. The chisel, not the brush, effected these artistic designs. Portugal was late in introducing the Gothic architecture. Hence the portal, connected with the cloister church at Batalha (Fig. 194), will show all that fanciful luxuriance which Spanish

FIG. 194.



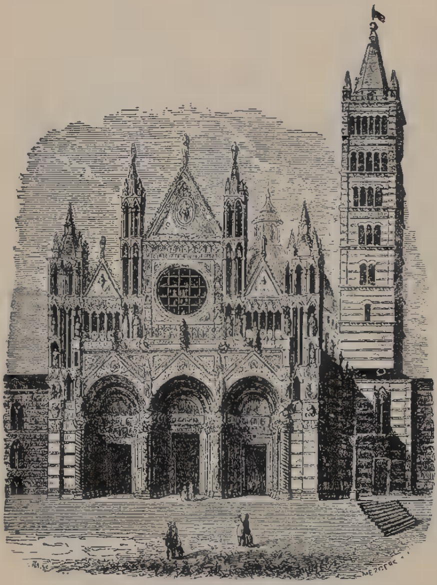
PORTAL FROM CLOISTER CHURCH AT BATALHA.

Gothic, as influenced by the Moors, presents in the cathedrals of Spanish cities. The portal is recessed, and the archivolts are a species of the multiple arch. The outer archivolt is curiously compounded of two multiple curves, interlacing with each other, and minute, richly-varied carving adorn all the portal. It all is bizarre, but beautiful in each detail, a luxuriance that satiates as soon as it pleases.

§ **Gothic Architecture in Italy.** Rome, on her seven hills, was not friendly to the new style of architecture. The Roman pontiff listened to descriptions of wonderful transalpine cathedrals, which seemed more the work of genii than of men. He also heard of the decline of his authority beyond the Alps; of kings, who no more trembled before the terror in papal bulls; of princes, who chose the State for the final authority rather than the Church; of prelates, whose princely estates rested upon the breath of civil rulers. All these changes had taken place in the period when Gothic architecture was developed. Hence, the pontiff at Rome was no friend to the new architectural style. The great cities of Italy slowly adopted the Gothic, yet they built some imposing Gothic cathedrals. St. Petronius was planned to be the largest of Gothic edifices, but it was never completed. The dimensions of the ground-plan of the Cathedral of Milan are greater than those of any European Gothic church except the Cathedral of Seville. Nevertheless, Italian Gothic is practically a Romanesque structure with Gothic features as ornamentation.

§ **The Italian Gothic Cathedral.** The interior is distinguished from transalpine Gothic by a greater distance between the piers and by a wider nave. A pier-column, rather than a moulded or clustered pier, was employed. The profile of the transverse arch was flat. The nave-arch was often so high, and the arches of the vaulting sprung from a point so low on the nave-wall, that the clerestory was simply a row of insignificant circular windows. Not buttresses, which framed windows, but walls, which were pierced with openings, inclosed the church. These were all Romanesque features; but the arches and the window-apertures were pointed. The Cathedral of Sienna (Fig. 195) will make clear how Italian Gothic is scarcely more than a Romanesque building, adorned with Gothic trimmings. The portals have Romanesque round arches, but pointed gables are placed above them. The finial upon this pointed gable is a statue. Corner-buttresses are completed as towers, and the central upper gable is supported by two small and slender turrets. Horizontal features are prominent. The campanile is wholly Romanesque, even so far as its position is concerned. The charm of Italian Gothic is not in the organic relationship of every part, nor in the profound knowledge of static laws, which the construction of the

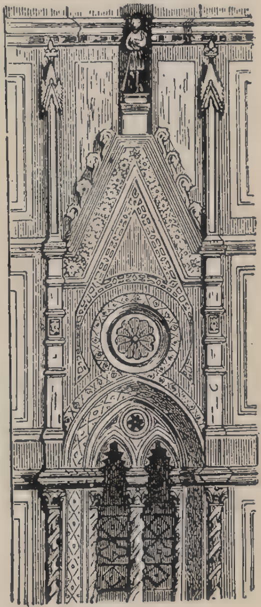
FIG. 195.



CATHEDRAL OF SIENNA.

edifice demanded; nor in the beauty of the ascent in the nave from the foot of the moulded pier to the keystone in the ceiling; nor in the wonderful strength and delicate grace of the high spires. This is the charm of transalpine Gothic. Italian Gothic pleases by its amplitude of nave and aisles; by massive piers adorned with colored marbles; by its carvings, and, above all, by the great vaults over the nave-bays.

FIG. 196.



GABLE FROM CATHEDRAL OF FLORENCE.

§ **Italian Gothic Window-gable.** The Gothic window in Italy is a pointed opening in the wall; not, as in German Gothic, the space between two buttresses, which is filled in with the pointed arch and window-tracery. The Gothic window (Fig. 196) is taken from the Cathedral of Florence. It is built within a frame, the lower stage of which is a twisted column, and the upper is a buttress only in appearance. The window has above it a crocketed gable, but the point of the angle is lopped off in order to make a support for the pedestal of a statue. Every Gothic feature here is reduced to mere ornament. The wealth of sculpture and the beautiful wall-paneling attract the eye of one who is more pleased with trimmings than with the structural elements of a Gothic building, even though these be transformed into most remarkable beauty by the genius of the artist.

§ **The Close of the Middle Ages.** Two great purposes actuated the Christian Church of Rome at the beginning of the eleventh century: the first was to extend the Christian faith among the barbarians of the West; the second was to establish the Roman patriarchate as a pontificate. Both purposes were accomplished. Apart from those mighty and terrible contentions, which ultimately co-ordinated the ruling powers and formed the modern nations, there was almost internecine strife between the papacy and the ordained powers of the State. The outcome was, practicably, civil sovereignty in the State, and ecclesiastical sovereignty in the Church. Two great styles of architecture arose during the Middle Ages: the Romanesque, a style developed by the priesthood; the Gothic, a style originated by the people. The edifices of both styles, as we have seen, are replete with evidences of the Christian creed, for our Scriptures and our doctrines could be reproduced from their sculptured forms and their stained-glass windows. These edifices also exhibit, through their statuary, the great Christian virtues and the noble Christian saints, both men and women, who blessed the world with holy lives. Much else is in them, such as evidences of the pomp and vanites of popes and kings, of bishops and princes. These great cathedrals abide with us. "Their builders have taken with them to the grave their power, their honors, and their errors; but they have left us their adoration."

Table of Gothic Churches.

I. IN FRANCE.

PLACE.	EDIFICE.	PART.	CENTURY.
Amiens.	Cathedral.	All.	XIII.
Angiers.	Cathedral.	Choir.	XIII.
Bordeaux.	Cathedral.	All.	XIII.
Coutances.	Cathedral.	All.	XIII.
Dijon.	Cathedral.	All.	XIII.
Noyon.	Cathedral.	Vaults.	XIII.
Paris.	Notre Dame.	West Front.	XIII.
Paris.	Sainte Chapelle.	Most all.	XIII.
Rouen	Cathedral.	Transepts and Portal.	XIII.
Senlis.	Cathedral.	Transepts.	XIII.
Alby.	Cathedral.	Nave.	XIV.
Bayonne.	Cathedral.	Nave and Vaults.	XIV.
Lyons.	Cathedral.	Nave.	XIV.
Montpellier.	Cathedral.	All.	XIV.
Rheims.	Cathedral.	West Front.	XIV.
Sens.	Cathedral.	West Front.	XIV.
Soissons.	Cathedral.	North Chapels.	XIV.
Tours.	Cathedral.	Transepts & Portals.	XIV.
Caen.	St. Nicholas.	Vaults.	XV.
Evreux.	Cathedral.	Central Tower.	XV.
Nevres.	Church.	South Portal	XV.
Paris.	St. Germain.	All.	XV.
Troyes.	Cathedral.	Nave & Central Tower.	XV.
Laval.	Church.	Choir.	XVI.
Rouen.	St. Maclou.		XVI.

II. IN ENGLAND.

PLACE.	EDIFICE.	PART.	CENTURY.
Canterbury.	Cathedral.	Nave.	XIII.
Chichester.	Cathedral.	All.	XIII.
Durham.	Cathedral.	Nine Altars.	XIII.
Ely.	Cathedral.	Choir.	XIII.
Glasgow.	Cathedral.	All.	XIII.
Lichfield.	Cathedral.	West Front.	XIII.
Lincoln.	Cathedral.	Vault.	XIII.
Peterborough.	Cathedral.	West Front.	XIII.
Ripon.	Cathedral.	Most.	XIII.
Rochester.	Cathedral.	All.	XIII.
Salisbury.	Cathedral.	Most.	XIII.
Wells.	Cathedral.	Most.	XIII.
Westminster.	Cathedral.	Most.	XIII.
York.	Cathedral.	Nave & S. Transepts.	XIII.
Edington.	Church.	All.	XIV.
Ely.	Cathedral.	Lady Chapel.	XIV.
Exeter.	Cathedral.	Nave.	XIV.
Melrose.	Abbey.	All.	XIV.
Winchester.	Cathedral.	Nave and Aisles.	XIV.
York.	Cathedral.	Lady Chapel.	XIV.
Cambridge.	King's Chapel.	All.	XV.

II. IN ENGLAND.—Continued.

PLACE.	EDIFICE.	PART.	CENTURY.
Edinburgh.	Roslyn Chapel.	All.	XV.
Gloucester.	Cathedral.	Lady Chapel.	XV.
Manchester.	Cathedral.	All.	XV.
Stratford-on-Avon.	St. Mary's Chapel.	All.	XV.
Warwick.	Beauchamp Chapel.	All.	XV.
Windsor.	St. George's Chapel	All.	XV.
Westminster.	Henry VII's Chapel	All.	XVI.

III. IN GERMANY.

Altenberg.	Cathedral.	Choir.	XIII.
Cologne.	Cathedral.	Choir.	XIII.
Cologne.	St. Gereon.	Choir.	XIII.
Freiberg.	Cathedral.	Most.	XIII.
Halberstadt.	Cathedral.	Nave.	XIII.
Lübeck.	St. Mary's.	All.	XIII.
Marburg.	St. Elizabeth's.	All.	XIII.
Nuremberg.	St. Lawrence.	Most.	XIII.
Meissen.	Cathedral.	Choir.	XIII.
Strasburg.	Cathedral.	Façade.	XIII.
Augsburg.	Cathedral.	All.	XIV.
Cologne.	Cathedral.	Nave.	XIV.
Freiberg.	Cathedral.	Choir.	XIV.
Halberstadt.	Cathedral.	Choir.	XIV.
Kuttenberg.	St. Barbara.	Most.	XIV.
Prentzlau.	St. Mary's.	All.	XIV.
Metz.	Cathedral.	Rebuilt.	XIV.
Schlettstadt.	Cathedral.	All.	XIV.
Thann.	Church.	All.	XIV.
Ulm.	Cathedral.	All.	XIV.
Vienna.	St. Stephen's.	All.	XIV.
Berne.	Cathedral.	All.	XV.
Munich,	Our Lady Church.	All.	XV.
Nuremberg.	St. Lawrence.	All.	XV.
Osnabrück.	Cathedral.	Choir.	XV.
Stendal.	St. Mary's.	All.	XV.
Ulm.	Cathedral.	Vaulting of Nave.	XV.

IV. ELSEWHERE IN EUROPE.

A. NETHERLANDS.

Brussels.	Cathedral.	All.	XIII.
Bruges.	N. D.	All.	XIII.
Tongres.	N. D.	All.	XIII.
Utrecht.	Cathedral.	All.	XIII.
Antwerp.	Cathedral.	All.	XIV.
Malines.	St. Rombaut.	All.	XIV.
Antwerp.	St. Jacque.	All.	XV.
Ghent.	Cathedral.	Tower.	XV.
Utrecht.	St. Catherine.	All.	XV.

B. SPAIN.

Burgos.	Cathedral.	Most.	XIII.
Leon.	Cathedral.	Most.	XIII.
Tarragona.	Cathedral.	All.	XIII.
Toledo.	Cathedral.	Most.	XIII.
Valencia.	Cathedral.	Most.	XIII.

B. SPAIN.—Continued.

PLACE.	EDIFICE.	PART.	CENTURY.
Burgos.	Cathedral.	Chapels.	XIV.
Oviedo.	Cathedral.	All.	XIV,
Toledo.	Cathedral.	Chapels.	XIV & XV.
Astorga.	Cathedral.	All.	XV.
Salamanca.	Cathedral.	All.	XV.
Seville.	Cathedral.	All.	XV.
Barcelona.	Cathedral.	Façade.	XVI.

C. ITALY.

PLACE.	EDIFICE.	PART.	CENTURY.
Orvieto.	Cathedral.	All.	XIII.
Sienna.	Cathedral	All.	XIII.
Genoa.	Cathedral.	All.	XIV.
Florence.	Cathedral.	Campanile.	XIV.
Florence.	St. Michele.	All.	XIV.
Milan.	Cathedral.	All.	XIV.
Perugia.	Cathedral.	All.	XV.
Milan.	S. M. delle Grazie.	All.	XV.

N. B.—1. The dates in the table are approximately correct, and will indicate the period in which the great cathedrals appeared.

2. The parts of an edifice referred to in the columns are those most conspicuous as illustrations.

3 The classification according to countries will show the relative degree of enthusiasm for the Gothic art.

Chapter VIII.

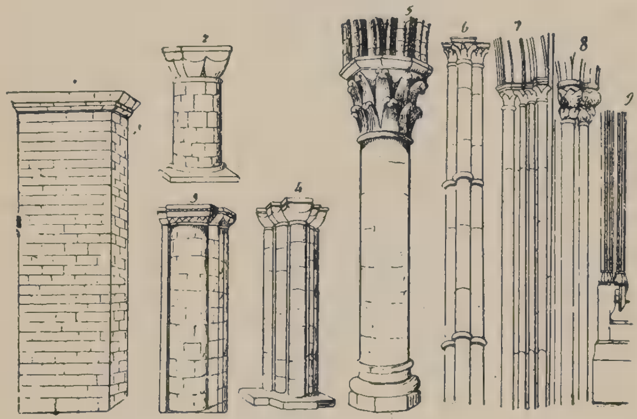
ELEMENTS OF MEDIAEVAL CHURCH ARCHITECTURE, CHRONOLOGICALLY ARRANGED.

§ **Mediæval Church Architecture.** Because mediæval ecclesiastical architects appropriated all the great features of the Byzantine and Basilican styles, some forms, which are prior to the eleventh century, are found in mediæval structures. These early forms are referred to as belonging to the times in which they appeared, and so are classed in centuries not belonging to the Middle Ages. There should be found great utility and profit in viewing the elements of ecclesiastical architecture under a chronological arrangement, since thereby the slow progress in advancement may be seen, as well as those suggestions in early forms, out of which were developed the most remarkable and beautiful types of later times.

I. DEVELOPMENT OF THE PIER.

§ **The Pier and Its Modifications.** The huge, tall, and square pier (Fig. 197, *1*) is Byzantine, fitted to sustain the weight of those mighty arches which support the Byzantine dome. These piers appeared before the tenth century. Early Norman structures of the eleventh century have a short, thick, and round pier (*2*), with a capital which seems composed of several smaller ones. The round surface of the pier often had rich carvings. Later in this century, when the cross-vault was used for ceilings, the transverse and longitudinal arches were represented on this short, solid pier by massive mouldings (*3*), resembling half-columns. After the introduction of the ribbed vault, at the close of the eleventh century, mouldings (*4*) were placed on this short, thick pier, representing the transverse, longitudinal, and diagonal ribs. The tall, slender pier is a product of the twelfth century. One form is a column-pier (*5*), having the many archivolt mouldings resting on its summit. Another form is a cluster of four columns (*6*), from whose capitals the great vaulting-ribs ascended. In the thirteenth and fourteenth centuries, in which appeared the pointed groined vaults, there are two forms of the clustered pier: one (*7*) has four principal mouldings, with intermediate ones, corresponding to the arches and ribs of the vaulting; the other form (*8*) has a round, central mass, with four half-round columns upon it, answering to the longitudinal and transverse arches. The fifteenth century column (*9*) seems a cluster of many rods, starting from the ground, and they bend into arches or ribs without the intervention of capitals.

Fig. 197.

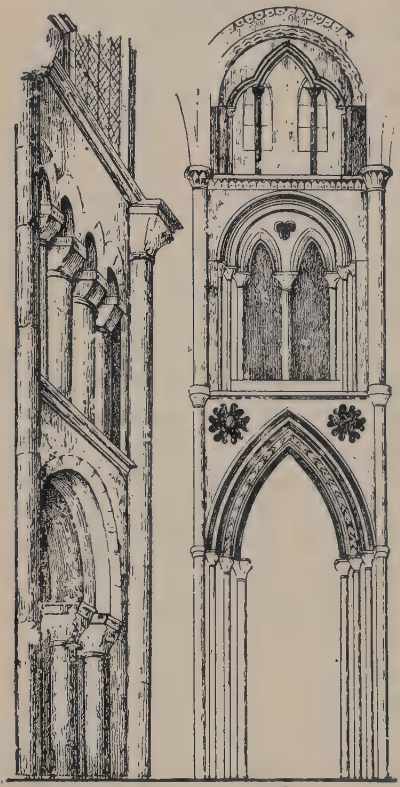


PIER VARIATIONS.

II. DEVELOPMENT OF THE NAVE-BAYS.

§ Nave-bays of the Eleventh and Twelfth Centuries. The Basilican nave-bay was tripartite, composed of the space between two columns, the unbroken wall-space above them, and the clerestory, which was perforated by a small window. The bay of the Romanesque style (Fig. 198, *a*) is different only by the piercing of the unbroken wall with an arcade. This portion became the gallery. Heavy mouldings from the piers separated the gallery-arcade into sections. A bay of the transitional style (*b*) shows a mode of construction which is Byzantine. The piers are built up to the clerestory; arches, transverse and longitudinal, are sprung from their summit for the vaulting. The space between the piers was filled in to make gallery and clerestory. Both methods, that of the Basilican and that of the Byzantine, are employed in the Romanesque bay. The tendency to more slender, graceful, and ornamental forms, emphasizing

FIG. 198.



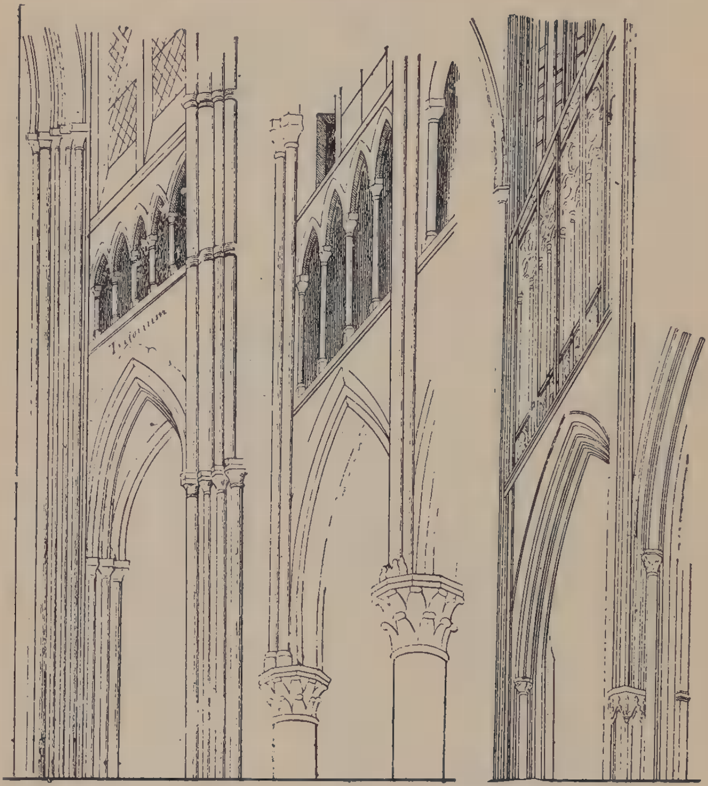
a. *b.*

ROMANESQUE NAVE-BAYS.

the idea of altitude and beauty, is traceable in these centuries. Yet there are no examples produced under this tendency, which can surpass in impressiveness the English Norman bay, with its low, huge, round columns and heavy arch below, and the massive columns and arches of the gallery above; for they are safe supports, adorned with most striking beauty because of their strength. The sturdy strength of this Norman bay in England always seems consonant with English genius. Yet the decorated bay of the Romanesque style, in which the high, slender column is employed, becomes, under the hand of the English architect, scarcely inferior to the Gothic bay.

§ **Nave-bays of the Thirteenth, Fourteenth, and Fifteenth Centuries.** The thirteenth century accepted the two modes of construction made familiar through the Romanesque style, for some Gothic bays seem but parts of a massive wall, built upon piers and arches, and perforated with Gothic openings, in order to make the triforium and clerestory, while other Gothic bays seem but the filling-in between lofty piers. The types of Basilican and Byzantine nave-walls are perpetuated in Gothic architecture. The Gothic bay, with clustered column (Fig. 199, *a*) is simply the space between two lofty piers, filled with the forms of Gothic architecture. The nave-arch is pointed; the triforium-space, formerly the gallery-space, has a pointed arcade; the clerestory has the pointed windows. The Gothic bay, between lofty columns (*b*), supporting, through the medium of the pointed arch, the nave-wall, is the Basilican mode of construction. The wall above the nave-columns is pierced by a pointed arcade, forming the triforium; above it is the clerestory. The bay of the perfected Gothic, with triforium transparent (*c*), belongs to the fourteenth century. The expression of organic unity is most completely attained in this bay, for the piers branch

FIG. 199.



a. *b.* *c.*

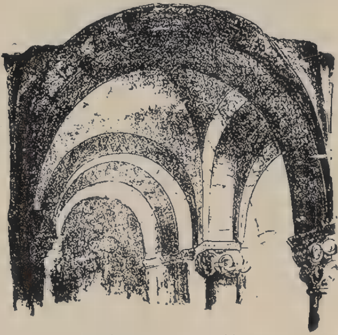
GOTHIC NAVE-BAYS.

and form all the arches of the bay. Then the triforium and clerestory make one magnificent aperture, beautifully divided, through which light pours in, flooding with its brightness the Gothic nave.

III. DEVELOPMENT OF THE VAULTED CEILING.

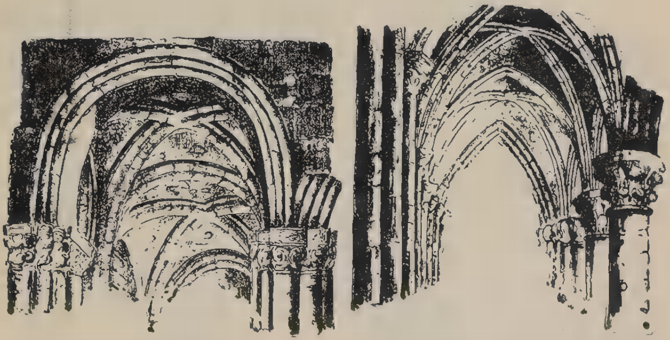
§ **Vaultings of the Eleventh, Twelfth, and Thirteenth Centuries.** The cross-vault (Fig. 200) was used in the tenth century and earlier for the crypt. But in the eleventh century it was employed over the narrow aisles. The surface of this vault was left plain. The twelfth century witnessed the introduction of the groined vault with the round arch (Fig. 201, *a*). A framework was made by means of diagonal ribs; the vault was the filling-in of this skeleton. The arches and ribs of the vault received prominent round mouldings. The groined vault with the pointed arch (Fig. 201, *b*) was characteristic of the vaulting in the thirteenth century. This vault had greater height, and the arches and mouldings were more graceful.

Fig. 200.



CROSS-VAULT.

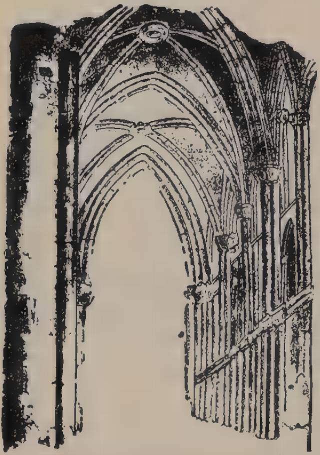
Fig. 201.



a. ROUND ARCHED VAULT. *b*. POINTED ARCHED VAULT.

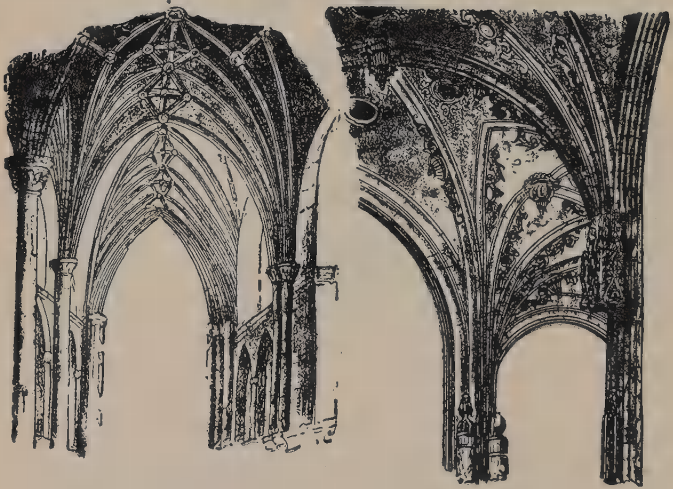
§ **Vaultings of the Fourteenth, Fifteenth, and Sixteenth Centuries.** These vaults had the common property of being groined vaults with the pointed arch. The vault of the fourteenth century (Fig. 202) had diagonal ribs with a keystone at their crossing. The mouldings were more elaborate and delicate. The multi-ribbed vault (Fig. 203, *a*) was the favorite vault of the fifteenth century. The junctions of the ribs with the ridge were marked by bosses, and minor ribs were inserted, forming, in the crest of the vault, certain shapes which have been

FIG. 202.



VAULT WITH KEYSTONE.

FIG. 203.



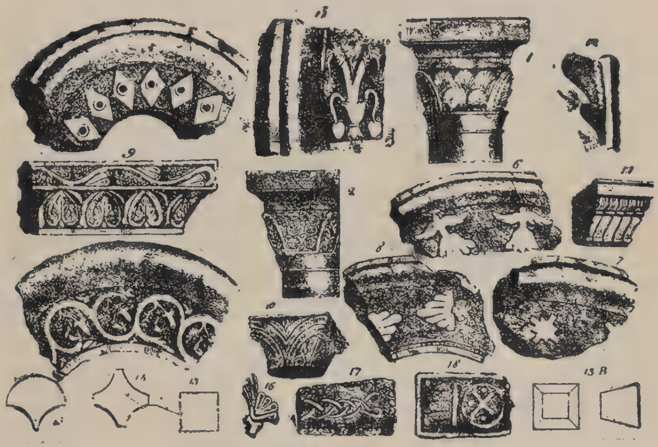
a. VAULT WITH LIERNES. *b*. DECORATED VAULT.

named liernes. The net-vault and the fan-vault are varieties of the multi-ribbed vault. The vaulting of the sixteenth century (Fig. 203, *b*) was excessively ornamented. Pendants fell from the junction of ribs; scrolls, leaves, or any artistic design which could be added to the face of the ribs, were employed. The vault was no longer an object of admiration because of its structure. The multiplicity of its decorative details alone allured the curious eye.

IV. DEVELOPMENT OF DECORATIVE FORMS.

§ **Decorative Details of the Tenth Century.** The ornamentation of the tenth century was simple and largely symbolical. The palm-leaf, instead of the acanthus, was at the corners of the capitals, and between the palm-leaves the scallop-shell was sculptured, sign of the Holy Land. The vine (Fig. 204, *4*, *5*) was carved into archivolts; also the dove (*6*, *8*), and the cross (*8*), and

FIG. 204.

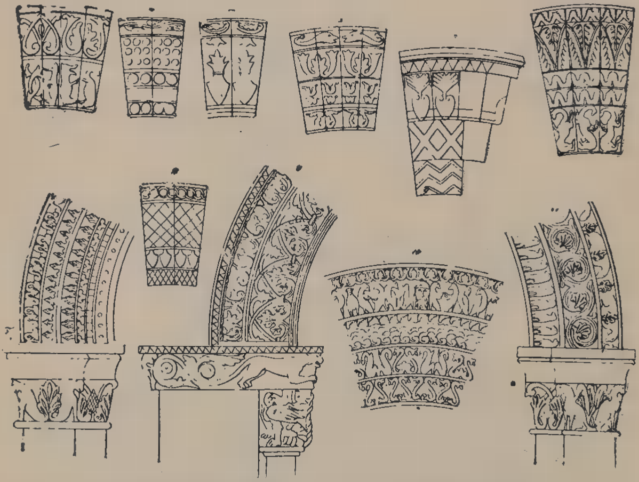


BASILICAN DECORATIONS.

the nail-head (*3*). Serious thought, rather than artistic skill, characterized this ornamentation.

§ **Geometrical Designs of the Eleventh and Twelfth Centuries.** Cisalpine or Italian Romanesque was under the influence of classical traditions in the decoration of arched and flat surfaces, while transalpine or Gallic Romanesque developed an independent and most striking style of ornamentation. This Italian style (Fig. 205) consisted of exquisite combinations of geometrical designs. The sections of archivolts finely exhibit examples of the dentate ornament, the inverted heart ornament, and the vine-scroll. Many of these geometrical forms are made by the bending of leaves and their stems; yet not such leaves as grow, but such as artists take liberty to create for decorative purposes. A peculiarity of this Italian decoration is seen in the animal

FIG. 205.

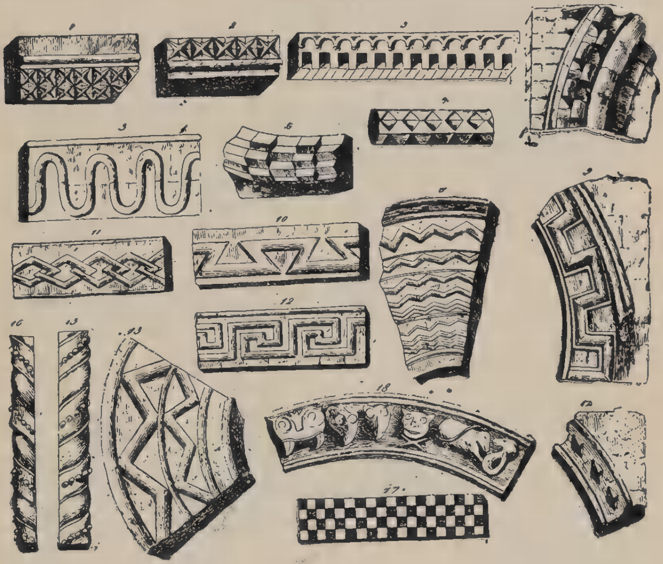


ROMANESQUE GEOMETRICAL DECORATIONS.

forms introduced in the capitals, and often one fancies that the windings of the curved lines in the outer borders of arches cease to make geometrical designs in order to make animal shapes.

§ **Lineal Designs of the Eleventh and Twelfth Centuries.** The Norman or transalpine ornamental forms present a marked contrast to those of the Italian Romanesque. The straight, not the curved line predominated in Norman ornamentation. Cornices and horizontal mouldings had the star-ornament (Fig. 206, *1*, *2*), the block and arch combined (*3*,) the rope (*5*), the chain, zig-zag, fret, and chess-board (*5*, *10*, *11*, *12*, *17*). The archivolts had the billet (*4*), the prism (*6*), the zigzag and the fret (*11*, *9*). These rectilinear forms were cut

Fig. 206.

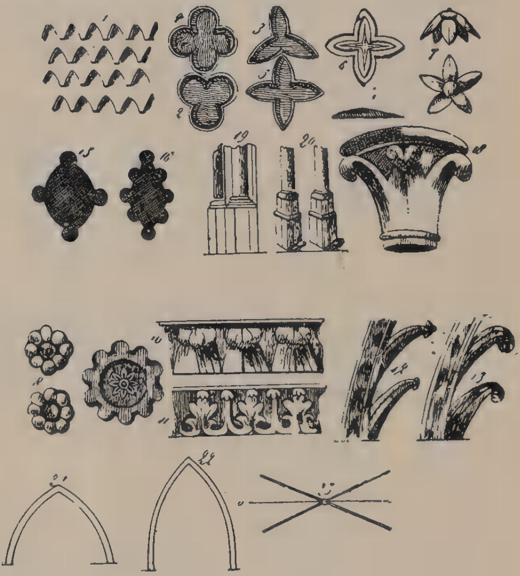


ROMANESQUE LINEAL DECORATIONS.

clearly upon the surfaces of cornice and archivolts, and their sharp lines gave clear contrasts of light and shade to these ornamented portions.

§ **Foliage Designs of the Thirteenth Century.** The Gothic style introduced designs which were modifications of nature's forms. The quatrefoil and trefoil figures (Fig. 207, *2*, *4*) are made with circular leaves; but other foliated figures (*3*, *5*, *6*) were made with pointed leaves. Floral forms are found in bosses (*7*, *8*), some having pointed petals, others having round ones. The bud capitals (*18*) were adopted, and arches often had budding shoots (12, *13*)

FIG. 207.

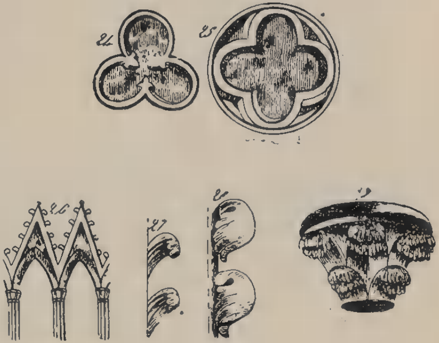


EARLY GOTHIC FOLIAGE DESIGNS.

on the inner curve. The horizontal mouldings (*10, 11*) also were adorned with a kind of bud-ornament.

§ **Ornamental Foliage of the Fourteenth Century.** As compared with the preceding century, the fourteenth century employs fewer decorative forms, but these are given simple, bold, and beautiful outline. The foliated figures (Fig. 208, *24, 25*) were embellished within by ornamental crosses, and without by the encompassing circle. A triangular hood, with crockets (*26*), was added to the windows. These crockets received a development which gave them less the appearance of buds and more the form of gracefully curved leaves. The capitals of columns (*29*) show a tendency to abandon the bud idea, and to substitute in its stead the leaf.

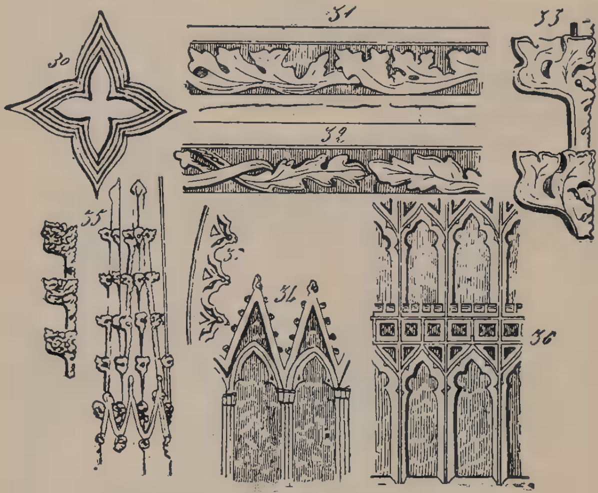
FIG. 208.



PERFECTED GOTHIC FOLIAGE FORMS.

§ **Ornamental Forms of the Fifteenth Century.** An affection for Gothic ornamental forms prevails. Their number is increased by modifications. Hence designs are more complex. The laws of moderation and simplicity were abandoned. Decoration became redundant. A pointed quatrefoil (Fig. 209, *30*) appears. Frieze has the leaf (*31, 32*) as the decorative element, and leaf-forms are made most prominent in the crockets (*33*). Cusps (*36, 37*) beautify the inner curve of pointed arches, and the increased favor of crockets is apparent in their use on the finials. Panels and windows show a preference for a perpendicular tracery (*36*). The love for excessive decoration is most evident. However, nature is the great teacher of the artist. Her forms are more closely imitated, and employed with a lavish hand.

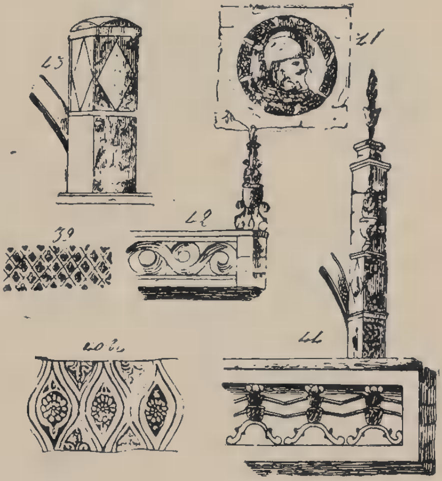
FIG. 209.



FOLIAGE ORNAMENT OF LATE GOTHIC.

§ **Decorative Details of the Sixteenth Century.** Ornamental designs are no longer foliated forms and arcades with pointed arches. A return is made to the ornamental forms which classical remains make familiar. Now the mineral, rather than the plant world, give the types, or else the shapes are taken from the artist's own fancies. The diamond (Fig. 210, *43*), the circle inclosing a medallion (*41*), the rosette (*40*), the festoon and scroll (*44, 42*), are restored. The buttress (*45*) also assumes a new character, since it is not terminated by the Gothic finial, nor does it narrow from base to summit as heretofore. The ornamentation of this century is transitional to the mode of decoration belonging to the Renaissance style, wherein are utterly discarded the noble types which the Romanesque and the Gothic styles furnished. The infidels to the Gothic art first changed its mode of decoration, then assailed its principles of structure.

FIG. 210.

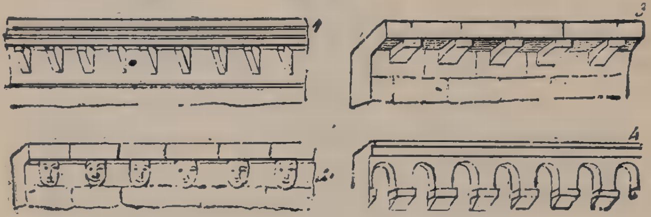


GEOMETRICAL DESIGNS OF LATE GOTHIC.

V. DEVELOPMENT OF THE CORNICE, BALUSTRADE, AND PARAPET.

§ **Cornice from the Sixth to the Twelfth Century.** The façade in classical architecture culminated in a magnificent and far-projecting cornice. Christian architecture reduced the cornice to a most insignificant member of the façade. The antipathy to anything obtrusively pagan determined this minifying of the cornice. Before the eleventh century cornices (Fig. 211) were supported by projections, to all appearances, the ends of beams, and had little beauty. They were given the form of triangular blocks (*1*), or of beam-ends with faces cut in them (*2*). The eleventh century followed the earlier forms of the cornice (*3*), and sometimes introduced an arcade (*4*) between the crown-moulding and the supporting brackets.

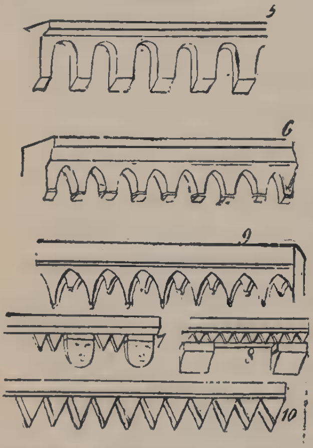
FIG. 211.



CORNICES OF THE BASILICAN STYLE.

§**Cornice During the Twelfth and Thirteenth Centuries.** The Romanesque style of the twelfth century retained the cornice with the arcade (Fig. 212, *5*, *6*), which had been invented in the preceding century. But the transitional style of the thirteenth century made modifications. The round arch gave place to the pointed (*9*). Also, new forms (*7*, *8*) were employed, reminding of the cornices of the eleventh century, in which the beam-end was prominent. The arcade in the cornice was abandoned, and instead, there appeared an ornament resembling the teeth of a saw (*7*, *8*, *9*). The evident intention was still to keep the cornice unobtrusive.

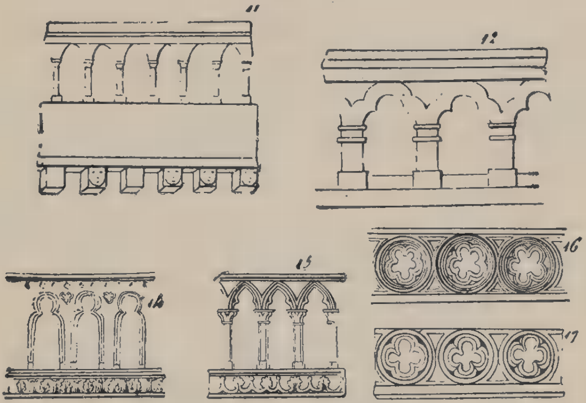
FIG. 212.



ROMANESQUE CORNICES.

§ **Balustrades of the Thirteenth and Fourteenth Centuries.** Christian architecture avoided arresting the eye by the prominent projection of the cornice. The eye was permitted to pass from the edifice, with but little obstruction, into the sky. But when finials were set above the eaves, there was need of some appropriate termination to unite them harmoniously together. The balustrade answered this purpose. It is a perpendicular termination, not a horizontal one. The advance in beauty and grace of balustrades during these centuries is seen by comparing them (Fig. 213, *11–15*). Perfected Gothic balustrade (*15*) is most beautiful. At first the balustrade was united with the cornice (*11*). Then the cornice-feature was reduced to a mere narrow stone band (*12*). Beauty was given later to this plain band by carving it into open sculpture work. Finally the balustrade was banished, and this sculptured band changed into the parapet (*16*, *17*), which came into general favor with the architects of perfected Gothic.

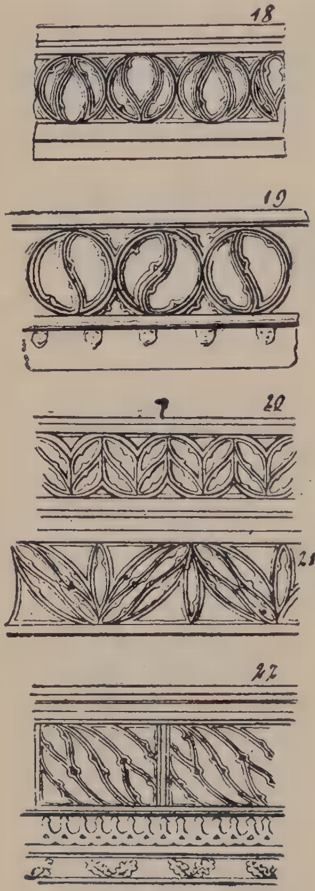
FIG. 213.



GOTHIC BALUSTRADE AND PARAPET.

§ **Parapets of the Fifteenth and Sixteenth Centuries.** That craze for new forms which ultimately displaced the charms of perfected Gothic and gave the lawless shapes of Flamboyant style, did not spare the parapet. The fifteenth century removed the cinquefoils and the quatrefoils from the parapet, and substituted circles (Fig. 214, *18*, *19*), tripartite or bipartite. The sixteenth century made no effort to retain in the parapet a perfect geometrical form. It had the fish-bladder shape (*20*) beneath an arcade; or this shape distorted (*21*, *22*), making a tracery as irregular as the leaping of flames. A tirade of abuse ought not to be hurled against the originators of this new mode of ornamentation. The pure Gothic was far nobler; but when the people lost all love for the higher and the best, it was no small service to replace it with something still decorative and fitted to awaken admiration in times that were fast becoming most degenerate. These changes, however, marked the approaching death of Gothic art.

FIG. 214.

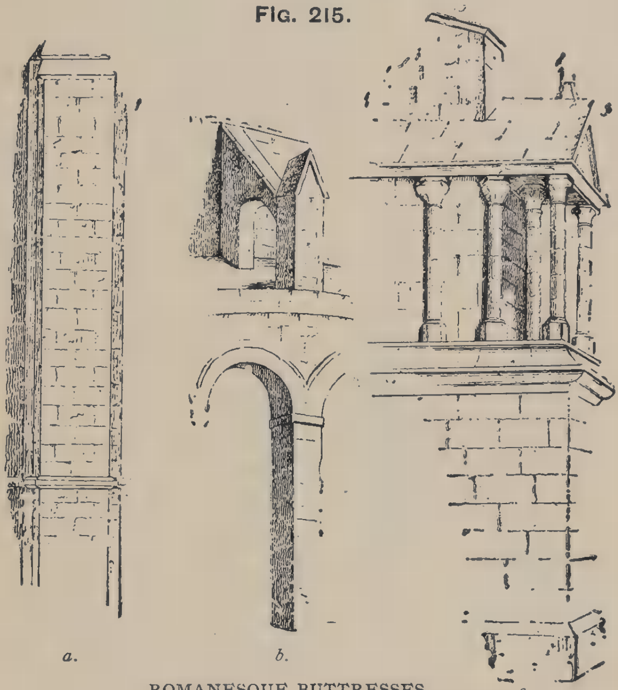


FLAMBOYANT PARAPETS.

VI. FORMS OF THE BUTTRESS.

§ **Buttresses from the Eleventh to the Thirteenth Century.** The introduction of the cross-vault in the aisles rendered necessary the thickening of the aisle-walls where the cross-arches had impact. This thickening at first was little more than a wall-pilaster, with all resemblance to the column removed from its surface. This early buttress (Fig. 215, *a*) was, in fact, a pier with beveled edges attached to the exterior of the wall. The earliest flying buttress (*b*) was made by building the pier-buttress above the shed-roof, and sending off a

FIG. 215.

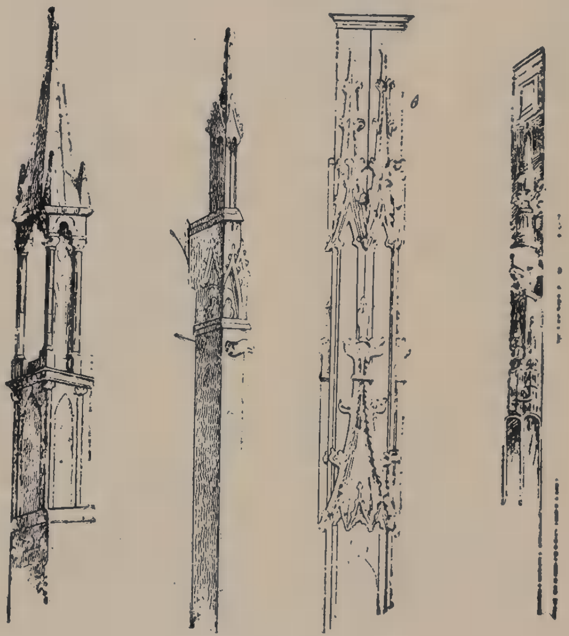


ROMANESQUE BUTTRESSES.

straight arm from it to the nave-wall. The massive Norman vaults required corresponding massiveness in the buttress. Hence the buttress was built in receding stories, and sometimes the transition in the stories was mediated by an early tabernacle form (*c*). The buttress in the Romanesque style was only for strength, not for both strength and beauty.

§ **Buttresses from the Thirteenth to the Sixteenth Century.** A peculiarity of the thrust of the pointed arch is, that it is more vertical than that of the round arch. Hence the Gothic buttresses were comparatively

FIG. 216.



a. *b.* *c.* *d.*

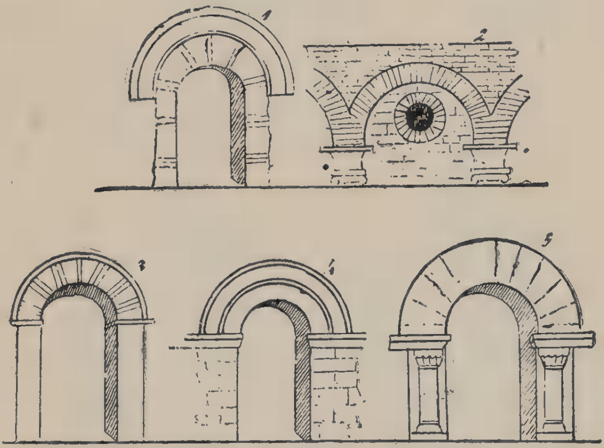
GOTHIC BUTTRESSES.

slender in appearance. During the thirteenth and fourteenth centuries the upper story of the buttress (Fig 216, *a*) was paneled and terminated by a finial. This style was followed in the fifteenth century. Two tendencies appeared during this period: one was to make the buttress (*b*) as slight as possible; the other was to retain the proportions of the preceding century, but to place upon the buttress (*c*) excessive ornament. The buttress of the sixteenth century was slight, and resembled a wall-pilaster, not in form alone, but in decoration.

VII. DEVELOPMENT OF THE WINDOW.

§ **Windows from the Fifth to the Eleventh Century.** The earliest window-aperture (Fig. 217, *1*) was framed by courses of stone set within the wall-opening and making the window-posts as well as the arch. A hood-moulding was placed above this stone-framing. There was also very early a circular window (*2*), which

Fig. 217.

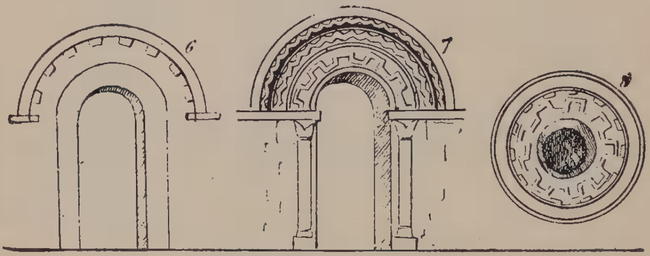


WINDOWS OF THE BASILICAN STYLE.

was framed by beveled stones. This framing distinguished the window from a hole in the wall. A great step in advance was taken when the window-posts and the arch were separated by means of a moulding (*3–5*). The arch-decoration either gave great prominence to the different arch-stones (*3*, *5*), or was made by concentric circles (*4*). During this period the window-posts were carved so as to resemble columns (*5*).

§ **Windows of the Eleventh Century.** Greater size and more elaborate ornamentation were given to windows in this century. The hood of the arch (Fig. 218, *6*) had at first the simple module ornament; but later, the lineal Romanesque decoration was introduced in the arch and hood. The circular window was developed by a rich embellishment of modules and fret-work.

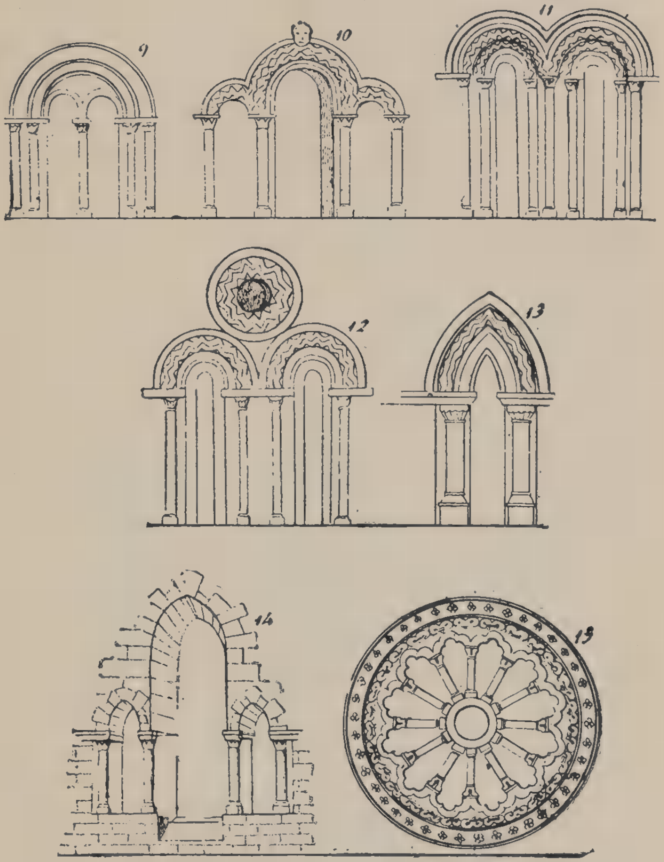
FIG. 218.



EARLY ROMANESQUE WINDOWS.

§ **Windows of the Twelfth Century.** There were most remarkable modifications of window-apertures during the periods of the perfected Romanesque and the the Transitional styles. Changes took place in the forms rather than in the mode of decoration. The single window (Fig. 219, *9*) was made bipartite by introducing a column. The window-posts also were columns. A triple-arched window (*10*) was formed, with the central arch but little higher than the side arches. Lineal ornamentation beautified these arches. The double window (*11*) is evidently a new form. The two long, narrow lights are sepa-

FIG. 219.

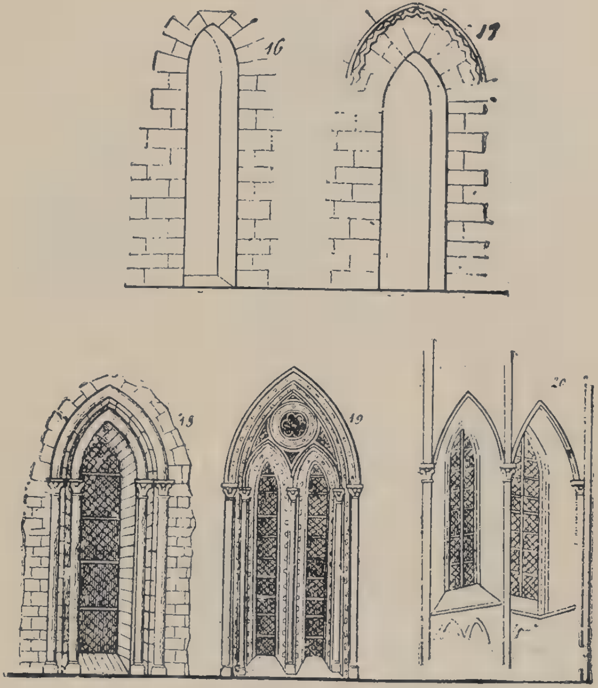


PERFECTED ROMANESQUE WINDOWS.

rated by thick masonry adorned with columns, thus emphasizing the construction as a combination of two windows. Each window has a separate hood, which intersect with each other. The manner of decoration still remains unchanged. A novel combination (*12*) unites the double window and the circular one. If this style were framed with outer posts and an arch, there would result the three-in-one style of window, which was brought to perfection in the Gothic. Windows of the Transitional style (*13*, *14*) deserve attention. The single-pointed window (*13*) is striking rather than graceful in its proportions. But the triple window (*14*) is beautiful. The central pointed arch is very high compared with the two side ones, and in this respect contrasts strongly with the triple window (*10*), which was used in an earlier Romanesque style. The Catherine wheel-window (*15*) is the most ornamental, as well as the largest circular window employed up to this time, and is, indeed, a most beautiful anticipation of the magnificent rose-windows in Gothic architecture.

§ **Windows of the Thirteenth Century.** The windows of the early Gothic period should be compared carefully with those which were developed in the preceding century. The early Gothic window is lancet-shaped (Fig. 220, *16*), but it is easily deducible from a Romanesque form; for if the pointed arch be substituted in place of the round arch, which is found in the double window (*vide* Fig. 219, *11*) of the perfected Romanesque style, the resemblance is most perfect so far as the lancet-shape is concerned. The lancet-window was left at first without ornament (*16*), but soon a hood (*17*) was given to the window. The ideal lancet-window (*18*) is deeply recessed, having receding columns in the jambs and archivolts resting upon them. The bipartite lancet-window (*19*) is really one pointed arched window, inclosing two lancet-windows, which have between them a thick portion of the wall, deeply splayed. The pointed arches within are tangent to a circular widow (*vide* Fig. 219, *12*). This bipartite window is the three-in-one style of the Gothic. A pointed double window (*20*) has deeply-splayed sides, and the windows, in consequence, are separated only by a slender columnar moulding on the wall. This form is easily deducible from the three-in-one window by removing the outer arch.

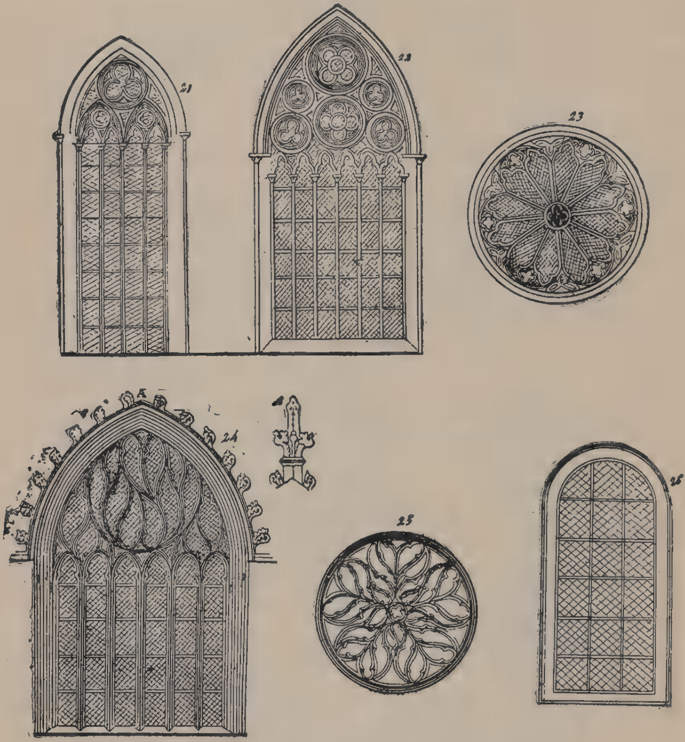
FIG. 220.



EARLY GOTHIC WINDOWS.

§ **Windows of the Fourteenth, Fifteenth, and Sixteenth Centuries.** The fourteenth century window is made multipartite by means of slender mullions. The seven-in-one window was formed in this manner. The meaning of this expression is that there are seven arches, including the encompassing one, in the window-aperture. The narrow seven-in-one window (Fig. **221,** *21*) has four pointed arches, included within two

FIG. 221.



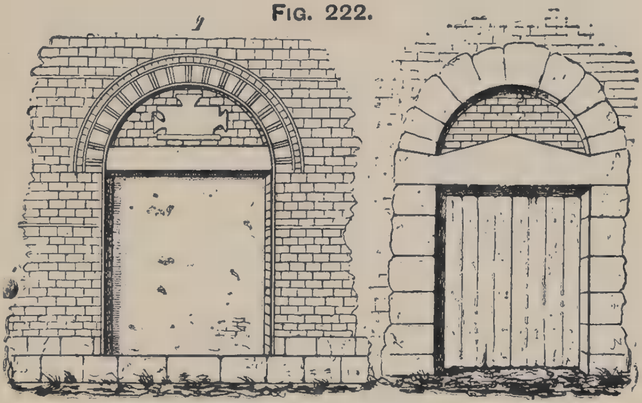
GOTHIC WINDOWS OF THE MIDDLE AND LATE STYLES.

arches, and these two were encompassed by the exterior arch. The number of foils in the head of this outside arch, if doubled, gives the number of the encompassed pointed arches. The broad seven-in-one window (*22*) has seven equal, long, narrow arches below the head. The broad seven-in-one window of the fourteenth century differed principally from that of the fifteenth century (*24*) through the tracery in the head of the window, the earlier being foils, the later being flamboyant forms. The rose-windows of these two centuries (*23*, *25*) differ, likewise, only in the tracery. The window of the sixteenth century (*26*) is a simple opening with perpendicular and horizontal bars, and is unartistic, scarcely ornamental.

VIII. DEVELOPMENT OF PORTALS.

§ **Portals from the Fifth to the Eleventh Century.** The Grecian mode of roofing the portal-space was by means of a stone lintel, reaching from side to side. The method employed by the Romans was to spring an arch

FIG. 222.

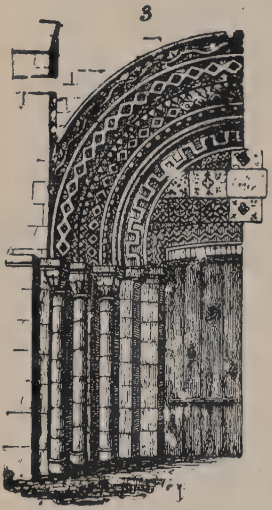


BASILICAN PORTALS.

from the sides. Christian architects from the fifth to the eleventh century used a combination of both forms. A purely Grecian doorway (Fig. 222, *1*) has above it, as ornamentation, the Roman arch. The second doorway (*2*) is a perfect Grecian one if the arch be removed, or a perfect Roman doorway if the lintel be cut away. But as it stands, the doorway is a combination, structurally, of both.

§ **Portal of the Eleventh Century.** The beautiful Romanesque portal is in structure simply this combination of the Roman and Grecian methods. The opening (Fig. 223, *3*) is roofed by the Roman arch; the archway is made recessed by arches of diminishing diameters. The innermost pillars on each side supports the lintel. The archivolts of this archway are beautifully carved with the lineal decorative forms. The columns constitute the door-jambs, often also beautifully adorned. The chief departure from this type of the Romanesque portal in the eleventh century is found in the removal of the lintel (Fig. 224, *4*), and in substituting another mode of embellishment. The doorway was still a receding series of diminishing arches. The new mode of decoration consisted of sculptured figures rather than lineal designs. Bosses, faces, symbols of the arts and sciences, were introduced in the archway, also the forms of animals and the effigies of sinners and

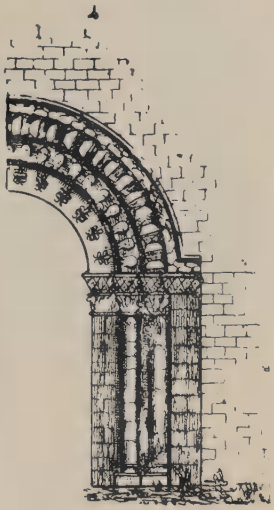
Fig. 223.



NORMAN ROMANESQUE PORTAL.

saints. There was at this time a general revolt to the ecclesiastical symbolism, which had been in vogue. This opposition was, in reality, only the first expression within the realm of ecclesiastical architecture of that new life which was to develop new conceptions of human freedom, new restrictions upon the sovereign and hierarchical powers. The hope in the new movement, as evidenced in the portals of churches, is seen in the fact that resort was not made to the classical modes of decoration, but that the work of the artist was independent. Any form was cut into stone for ornament sake, anything reminding the people of the life around them. The portals, therefore, became a kind of museum of what the people saw and loved. Here is the most attractive feature of the new mode of decoration. Everything was tried, all things were held tentatively. The dry-as-dust censor of men's work may criticise all this art as bizarre; nevertheless, it will ever have lively interest for those who observe to learn the life and spirit of the past.

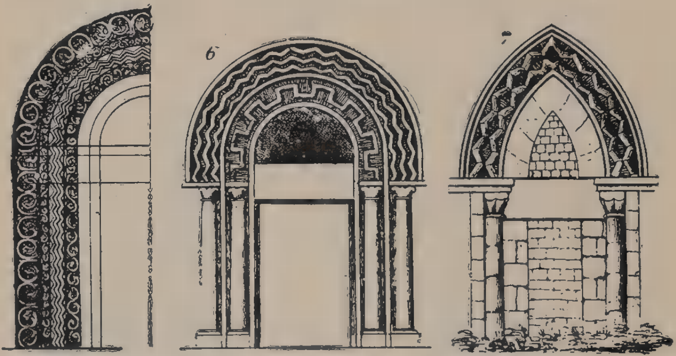
Fig. 224.



ITALIAN ROMANESQUE PORTAL.

§ **Portals of the Twelfth and Thirteenth Centuries.** Three modifications of the portal occurred in this century. Yet the ornamentation of all three showed a return to the lineal mode, thus indicating antagonism to that movement in the preceding century, which united the irreverent and the grotesque in the ornamentation of portals. The first modification (Fig. 225, *5*) made the arch appear as if it was simply two stems bent above into an arch. The idea of an arch supported by columns was banished from this form of portal. The second form (*6*) was simply concentric arches, in the same plane, resting upon pillars. The third form (*7*) was transitional, being a pointed arch upon pillars with lintel set in receding jambs below the spring of the arch.

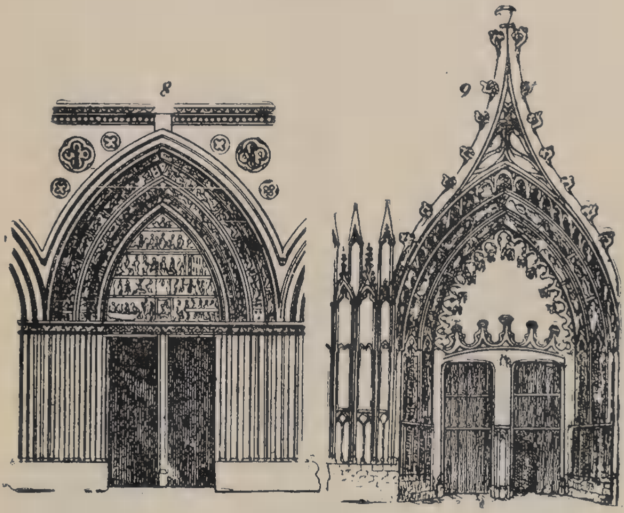
FIG. 225.



LATE ROMANESQUE AND TRANSITIONAL PORTALS.

§ **Portals from the Twelfth to the Sixteenth Century.** The Gothic portals of the thirteenth and fourteenth centuries were either single pointed arches with receding door-jambs, or else a triple archway. There was most remarkable beauty in the Gothic doorway of the thirteenth and fourteenth centuries (Fig. 226, *8*). The pillars in the jambs and the archivolts in the arch were wrought into one harmonious whole. Ornamentation, also, was churchly, being statues of eminent religious persons or ideal forms which illustrated devotion to the Church. The head of the arch contained sculptured scenes from the Scriptures. The portal of the fifteenth and sixteenth centuries (*9*) had the ogee arch,

Fig. 226.



GOTHIC PORTALS.

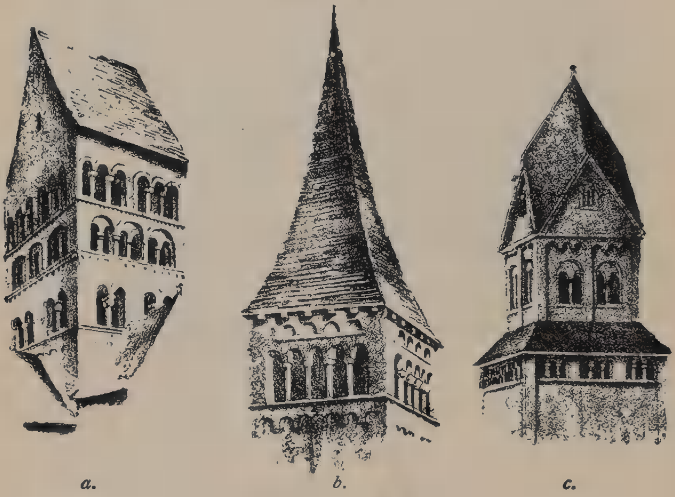
and received an ornamentation of artistic forms, seldom indicative of religious associations or connected with religious thought.

IX. DEVELOPMENT OF THE TOWER AND SPIRE.

§ **Towers from the Sixth to the Twelfth Century.** The campanile was a tall, slender tower, with unbroken surface until you approached the top, where an open arcade was introduced. These towers were used as early as the sixth century, and continued to be built until the twelfth century. They were erected usually in the vicinity of the choir. Italian architects gave preference to these campaniles. Transalpine architecture perfected the tower as a structural part of the church edifice.

§ **Towers of the Twelfth Century.** The earliest form of the Romanesque tower (Fig. 227, *a*) was square, with its surfaces pierced with arcades. The lower stories of these arcades had fewer arches than those above. A simple gable-roof completed the tower. A more graceful form (*b*) had a single story of arcades and a pyramidal roof with incurved sides. This type shows a most marked improvement in the beauty of the arcade. A third modification (*c*) is to be carefully noticed because of its influence upon the spires of the following century. The upper story of this tower is a smaller square than that of the body of the tower. Windows, rather than arcades, pierced the sides of this smaller square. The roof was begun as if it would be a cross-gable, but instead, a pyramidal roof, whose sides are diamond shape, is constructed. The second and third forms are attractive types of towers.

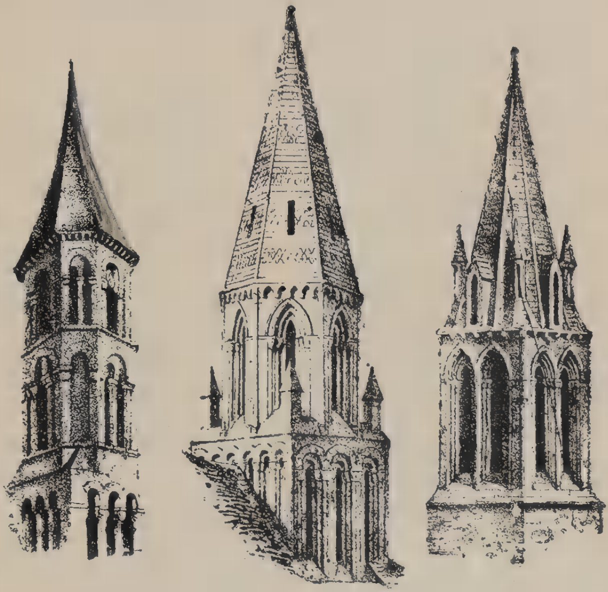
FIG. 227.



ROMANESQUE TOWERS.

§ **Spires of the Thirteenth Century.** There are in this century three forms of the spire. One (Fig. 228, *a*) has the body of the spire a square. There is built upon this foundation an octagonal structure of two stories, each story having its faces pierced with windows. An incurved pyramidal roof completes the spire. The preceding century gave the tower with the upper story smaller than the body of the tower; and also in this preceding century we find the incurved pyramidal roof. The combination of these two features in the thirteenth century made the transitional spire. The second form of spire (*b*) is also transitional. The story which is the lower and the foundation has tall, slender, round arched

Fig. 228.



a. *b.* *c.*

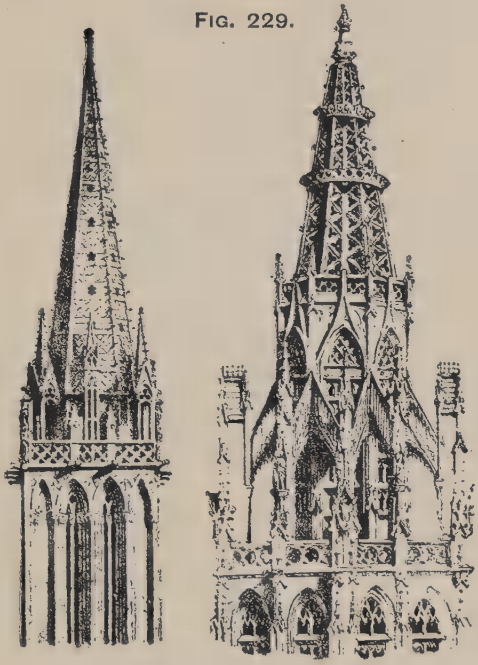
TRANSITIONAL AND EARLY GOTHIC SPIRES.

windows, and is square; the next story is octagon, with pointed windows. The roof is pyramidal, but the faces are not incurved. The third form (*c*) is the early Gothic spire. The body of the tower is a square; the second is also a square, but of smaller dimensions, and is pierced with pointed arches. The roof is pyramidal, but not incurved. The small gable-windows in the roof are to be noticed because they became beautifully developed in subsequent spires.

§ **Spires of the Fourteenth, Fifteenth, and Sixteenth Centuries.** The early Gothic spire was changed only in its proportions. The octagonal belfry was built higher; and tall, narrow, pointed windows made the openings in its sides. Then the roof was increased in height. The result was the perfected Gothic tower of the fourteenth century (Fig. 229, *a*), a structure so daring in its altitude, so apparently fragile in its construction, that it seems set up to offer mockery to the irrational but mighty winds. Early Gothic (*vide* Fig. 228, *c*) developed the elements of this spire; perfected Gothic added only harmony of proportion and exquisite beauty. The decorated Gothic spire of the fifteenth and sixteenth century (*b*) exhibits the love of the Gothic architect for this feature of his edifice. The wealth of ornament on this structure is truly amazing. Indeed, the observer, beholding all this marvelous beauty, wrought in stone and placed at such a height, finds it not in his heart to censure that just pride which led the architect to pause and twice to crown this spire before he had reached its lofty apex.

§ **The Law of Development.** No truth is more frequently impressed upon the close observer of progress in the grace and beauty of architectural forms than that no true advance in a style can be made unless all that is best in its earliest stage is conserved. The perfected Gothic spire is the early Gothic spire beautified. A new style is always the expression of new intellectual and spiritual life, one or both. The Romanesque style came into being when imperial grandeur haloed the hierarchy. New life ever introduces new forms, and the innate love of the beautiful, planted in man by the Creator, develops these forms from the crude to the perfect. Then decay sets in, and man, to hide the hand of death even for a little while, overloads his works with the extravagance of ornamentation.

Fig. 229.



a. *b.*

PERFECTED AND LATE GOTHIC SPIRES.

Chapter IX.

RENAISSANCE STYLE, 1450-1800.

§ **Humanism.** The Middle Ages closed as soon as limitations had been established to the ecclesiastical and civil authorities, and great rights were guaranteed to the people. The modern era began when the people, with their newly-acquired rights, assumed and demanded freedom for the intellect and conscience. Ecclesiastical theology was then supplanted by classical studies. The orators of Greece and Rome, not the speculations and refinements of the schoolmen, occupied the thoughts of men. The Church fathers were forgotten in the charms of Virgil, Horace, and Homer. Architects no longer went to great cathedrals and ancient Christian basilicas for inspiration and suggestion; but they stood by the ruins of ancient pagan temples, and learned again the secrets of noble colonnades with their imposing entablature, of beautiful porticoes with their pedimented splendors. Men began to regulate life by the models of this world. Men became aware that man was great and worthy of study before the Christian revelation was made manifest. Men began to understand that Christianity had displaced, not alone a false religion, but also a magnificent civilization, in which laws ruled, heroic men contended for human rights, great poets enshrined in verse thoughts and hopes which belonged to all mankind. The enlightenment of the mediæval mind, through classical lore, resulted in humanism.

§ **Italy as the Emancipator.** The decadent Gothic styles of the fifteenth century attest the general revolt to the all-powerful influence of the papal Church, which had retained full sway for centuries. The papal concessions to the civil powers evidence the submission of the Pope to the new order of things; then priest, prince, and people found oblivion for the memories of bitter struggles in the new joys and novelties of the Renaissance. Mediæval Christendom was brought to an end about the time when the Eastern empire fell before the Moslem hosts, and with it fell also the prestige of the Greek patriarch at Constantinople. In this same period the holy Roman empire was dismembered, and by its subversion the papacy was left without the aid of its most efficient ally. Italy, when pagan, was the abode of the world's civil ruler and the home of the world's best culture in both literature and arts. Italy, when Christian, first developed an ecclesiastical hierarchy, whose Pope attained almost world-wide dominion, enslaving the minds and consciences of all men. Italy next restored the literature and arts of ancient Rome to the modern nations, and thus awakened the era of intellectual freedom, the sure forerunner of religious liberty. "Italy was one great school of the new learning at the moment when the German, French, and Spanish nations were invited to her feast." This feast was the Renaissance.

§ **The Roman Catholic Church.** Ecclesiastics as well as civilians shared in the general enthusiasm for the revival of learning. Yet soon it became apparent that the decline of papal authority grew with the increase of pagan culture. The quickening forces in society were not the faiths and dogmas of the Church, but the poems and philosophies of Greece and Rome. The inspiration of artists came not from the Christian basilicas and cathedrals, but from the neglected ruins of Roman temples and palaces, now seen, after centuries of blindness, to be great and beautiful in their crumbling fragments. The outward vesture of the Western World was indeed Christian, but the animating spirit was pagan. The papal Church sought to regain its ancient prestige. Compromise was effected. Not strong enough to prohibit sins, the papal Church proclaimed indulgence of them; and the price for this new license in conduct was used to erect the present St. Peter's at Rome, a Christian basilica in ground-plan, but a pagan edifice in elevation. Yea, its nave was adorned with such forms as would be admired in the baths of Caracalla, but which are sadly misplaced in the church-nave, where the glory of Gothic art had been displayed for ages. Paganized Christianity is the Roman Catholic Church, and its weapons were no longer those of the gospel, but the tyranny of the Inquisition and the secret order of the Jesuits.

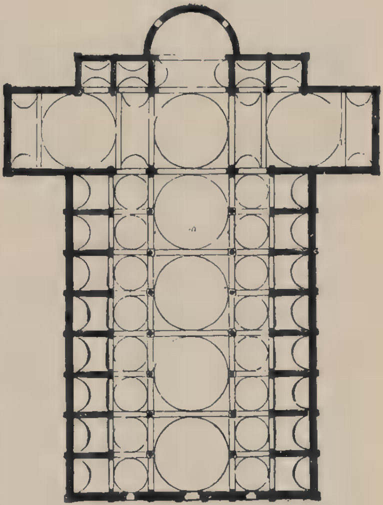
§ **The Architecture of the Renaissance.** Princes, not priests, were the leaders of the Renaissance. Hence, as the culture of the new movement was not religious, the architecture was not ecclesiastical. Palaces, not churches, were the great creation of the Renaissance architects. Yet the Roman Catholic Church showed its continued vitality and splendor by creating many palace-churches, wherein were banished all reminders of the ecclesiasticism of the Middle Ages. All mediæval Christianity, with its associations of enslavement, had become distasteful to the potentates of the new era. The early Christian basilica in earliest times was the adaptation of a pagan basilica to the needs of Christian worship. But the Christianized building was resplendent with the great symbols of the Church. The Christian Church of the Renaissance was a pagan edifice in construction and ornamentation, wherein Christian worship was celebrated.

Hence this Renaissance-church is not Christian, but pagan in spirit. The paneled splendor of a Roman palace supplanted, in its interior, all the precious Christian symbolism and decoration of the past; for they had lost all instruction to a world-loving clergy and laity.

A. STRUCTURAL FEATURES OF THE RENAISSANCE.

§ **Ground-plan and Vaulting.** Types of Christian worship and the ground-plans adapted to them are more persistent than architectural environment. The changes of policy and the new means employed to retain hold upon believers in Christ as well as to resist and crush the new religious movements of the time, had transformed the Papal Church into the Roman Catholic Church. The ancient order of service, with its attendant ceremonies, continued unchanged. Hence the plan of church, suitable in the past for Christian worship, was also appropriate for the Renaissance church; and so we find all the typical ground-plans in use. The plan of St. Francisca (Fig. 230) is the basilican or earliest type of the Christian Church. Four large domes vault the nave. A similar dome, a cylindrical vault, and a half-dome make the vaulting of the choir; two cylindrical vaults and a single dome, like those in the

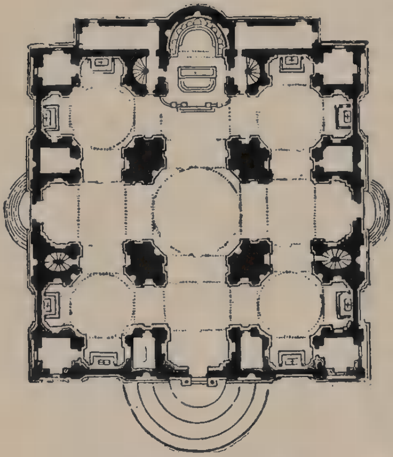
FIG. 230.



PLAN ST. FRANCISCA, FERRARA.

nave, constitute each transept. Smaller domes roof the aisles. The aisle-chapels are vaulted by cylinders. Thus it is seen that the groined vault has no place in this Renaissance church. With its disappearance there also passed away the clustered piers of the nave, and the beautiful triforium, and the graceful clerestory; or, if these remained, they were so altered that one can scarcely recognize their presence. A Byzantine plan (Fig. 231) is employed in the Church of S. Maria. It is the Greek cross with the great dome above the crossing. In the angles of the arms are domical chapels, connected with aisles. The transept arms have portals. The mighty piers, supporting the central dome, have columnar mouldings, yet they make no such impression of organic structure as the clustered columns of the Gothic. All aisle-vaultings are cylindrical. Independent of decoration, there is in this edifice great impressiveness. The length of the nave and choir, interrupted on the sides by massive piers, the barrel-vaults overhead, together with the great central dome and mighty arches, are most impressive. The plan of St. Peter's, at Rome (Fig. 232), is Romanesque, having a long nave, the crossing, and beyond, the choir. But it is a Romanesque plan made in the following manner. At first a Greek cross with a magnificent

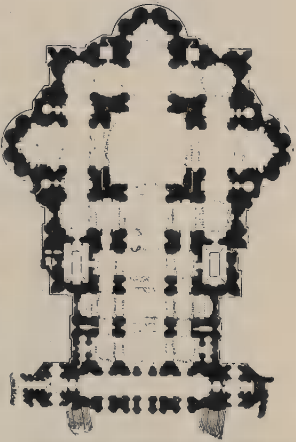
FIG. 231.



PLAN S. MARIA, GENOA.

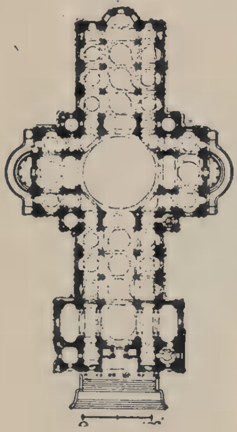
dome above the crossing, was designed for the plan of the church; then later, several bays on the west were added to make the Latin cross. The result is a Romanesque ground-plan, with an elevation embodying a complete Byzantine structure. The cylindrical vault covers the nave and choir, and the crossing has the most remarkable dome ever constructed by man. The side-aisles and the transepts have cylindrical vaults or small domes, making pleasing changes in the ceiling by the different modes of vaulting. The chief distinction between the Romanesque and Gothic plan is in the narrow proportions and greater length for the Gothic. The plan of St. Paul's (Fig. 233) is the Renaissance Gothic plan. The nave and choir are roofed by domes, and the crossing is covered with a dome of great magnitude, which seems larger by contrast with the small domes of the nave and choir. The side-aisles are vaulted with small domes. There is every advantage, in this mode of roofing the nave and choir, over the cylindrical vault, for variety of effects may be secured as well as beautiful surprises, since the eye naturally pauses at each dome-

Fig. 232.



PLAN ST. PETER'S, ROME

Fig. 233.



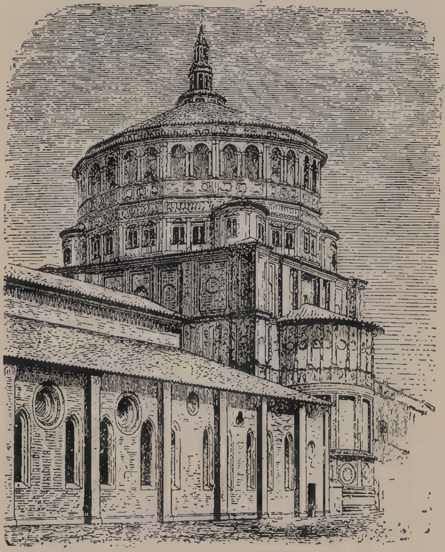
PLAN ST. PAUL'S, LONDON.

opening in its gaze along the ceiling toward the choir. The artist recognizes this fact, and so makes the dome's surface replete with the charms of art. The plan of the Renaissance church may be either Basilican, Byzantine, Romanesque, or Gothic. But the structure upon these plans has but little resemblance to any antecedent ecclesiastical architecture.

B. RENAISSANCE EXTERIORS.

§ **Basilican Type with Dome.** Often, in the Romanesque or Gothic church, there was placed over the crossing, before the choir, a noble tower or spire. The Renaissance church built here a dome. The church of S. Maria della Grazie (Fig. 234) exhibits the type of structure with the Basilican nave, which has no prominent clerestory. The domical portion made the transepts, and gave a cruciform character to the building as seen from without. There are four great piers at the corners of the crossing, which rise higher than the nave-roof, between which the dome is constructed. Hence the transept is centrally a square, with the north and south ter-

FIG. 234.

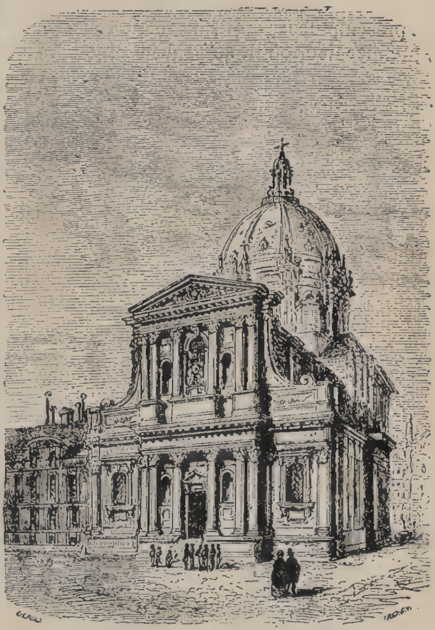


CHURCH OF ST. MARIA, MILAN.

minations semicircular. Two circles of windows, one above the other, and a roof, constitute this dome. This composite building is Renaissance. The domical portion is worthy of admiration.

§ **Domed Basilica with Attic Story.** The two mediæval styles, the Romanesque and Gothic, developed most striking clerestories in connection with the nave and choir. Also, these styles preferred the cruciform roof. The Renaissance also presents a structure with the clerestory and the cruciform roof. But here resemblances cease. The Church of La Sorbonne, Paris (Fig. 235) is a beautiful example of this type. The upper termination of the body of the church is completed by heavy cornice and a balustrade. Columns or pilasters, not buttresses, make the perpendicular divisions. The attic, or Renaissance clerestory, resembles, in finish, the body of the church. The nave and aisle-roofs are partly shut out from view by means of the balustrade. A classical portico makes the western portal. Corinthain

FIG. 235.

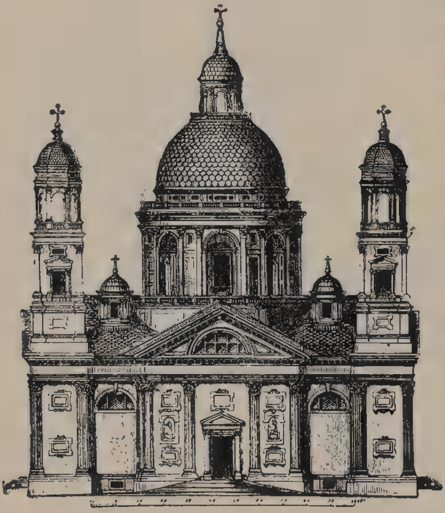


CHURCH OF LA SORBONNE.

columns are in the lower story, composite columns above. The pediment is rich in sculptured ornament. The beautiful dome above the crossing rises in majesty above the portico. The drum of the dome is strengthened by buttresses, whose faces are wrought into clustered composite pilasters, and the dome itself is crowned by a balcony, a lantern, and a cross. We seek in vain here for reminders of mediæval art. And although the column, the entablature, the pediment, the dome, are classical, the whole building is in its spirit and form wholly modern.

Byzantine Type of the Renaissance. The Byzantine church is in its plan a Greek cross, and above the crossing is the magnificent central dome. The Renaissance architects found this type peculiarly fitted to exhibit classical features. S. Maria di Carignano, of Genoa (Fig. 236) is a Renaissance Byzantine church. The wall of the dome's drum is ornamented with engaged columns, and the openings therein are deeply recessed windows. These engaged columns seemingly support a cornice. The lantern, with a surmounting

Fig. 236.



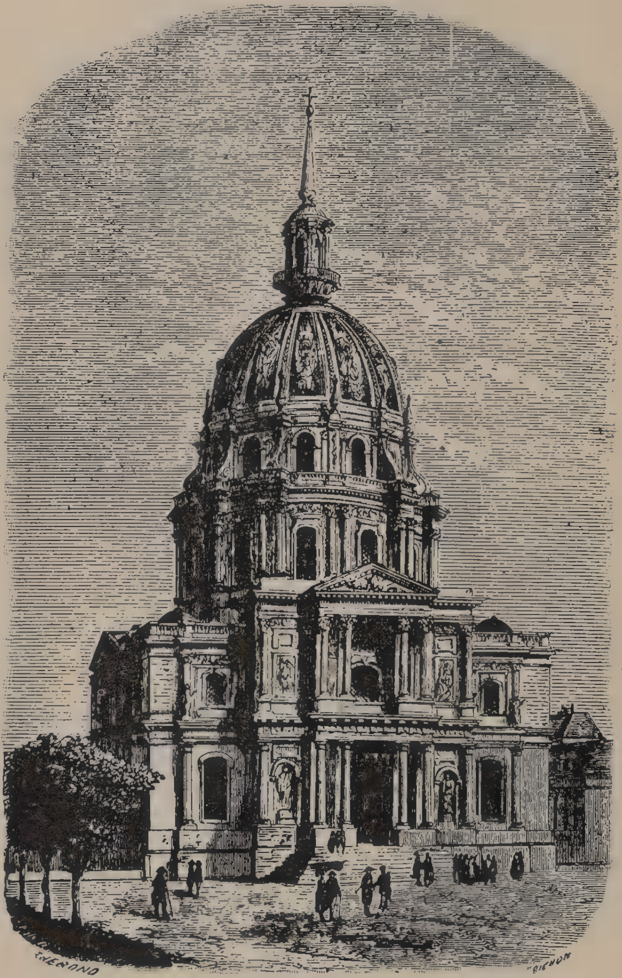
CHURCH OF S. MARIA.

cross, completes the dome. The angles of the transepts of the church have domical chapels, and small domes with lanterns indicate, on the roof, the position of these chapels. There are corner towers, which have their completion in domical structures, similar to one which is placed, as the lantern, upon the dome. The pedimented portico and the body of the towers have beautiful columns or pilasters, which space the wall-surface into rectangular compartments. These columns support a prominent entablature. This church is built after the original plan for St. Peter's, at Rome.

§ **Transalpine Renaissance Exteriors.** The love of the Western nations of Gothic extraction always attached itself to structures of lofty height. The Romanesque style, as soon as it came in transalpine regions, assumed height for its nave, and joined thereto the height of its towers. The Gothic style in these same regions aspired to loftiest altitude for its naves and its spires. It is not strange, therefore, that as soon as the Renaissance style was adopted in France, the edifices were then given such form as to set forth their height in the most striking manner. This end was accomplished by means of the clerestory, which, in the Renaissance buildings, appeared as attic stories, corresponding to the attic feature in the classical portico of the Renaissance church. France was the most congenial soil for the new architectural style.

§ **Byzantine Type with Attic Story.** The Church of the Invalides, at Paris (Fig. 237), is a majestic edifice. The cross above the dome is three hundred and twenty-three feet above the ground. The nave and choir, together with the transepts, make the building a Greek cross, the angles having domical chapels. Each

FIG. 237.

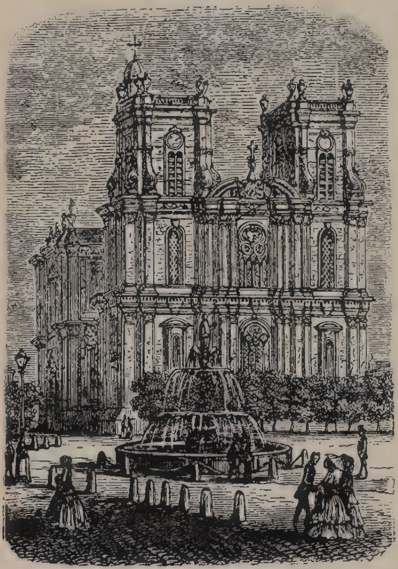


CHURCH OF THE INVALIDES.

face of the church has, centrally, a pediment resting upon composite columns, but the southern face is made the principal façade, and is given an imposing portico with the Doric order in the lower story and the Corinthian in the upper. The body of the church has, in both stories, engaged columns, dividing the walls into compartments, while those in the upper story have allegorical figures placed in front of them. The drum of the dome has two buttresses at each angle of the cruciform plan. These eight buttresses have each a pair of engaged columns. There are also between each pair of buttresses one pair of engaged columns on the face of the drum. Thus forty beautiful columns surround the drum. A circular stylobate is its beautiful and strong foundation. An attic story with a circle of windows is added to the drum, whose walls are strengthened by triangular buttresses above those of the drum. Twelve gilt ribs divide the surface of the dome, and in the triangular compartments thus made are projecting devices of arms and various other trophies. A lantern with spire, globe, and cross completes this most remarkable domical structure.

§ **Renaissance Basilica with Towers.** The Renaissance types of churches which we have considered show little kinship to the mediæval ecclesiastical edifices. Classical porticoes, walls spaced by engaged columns, heavy cornices, upper and lower stories, towering domes of the Renaissance, are all external features in boldest contrast to deeply-arched portals, walls spaced by buttresses, gable-roofs, and lofty towers of the Gothic and Romanesque styles. The feeling that the domical Renaissance church belongs rather to a civic than an ecclesiastical style of architecture, increases more and more with acquaintance. But the type of Renaissance church produced in the Cathedral de Vitry-de-Français (Fig. 238) demonstrates that the two-storied edifice, having rectangular, not triangular divisions, two orders of columns, separated by massive cornice, instead of superimposed series of pointed arcades, is a churchly building, although all mediæval features have been supplanted by classical ones in the exterior. Consider this western façade. The two massive towers and the central portion before the nave constitute a front which was common in churches for centuries. The decadent Gothic styles, with marked perpendicular and horizontal features, prepared the way for the classical divisions of this façade. The column with entablature has banished the column with the arch. A window is no longer the space within an arched construction, but an aperture in a wall. The type of the façade is mediæval, but the composing elements are Renaissance. So is the edifice throughout Renaissance. The churchliness of this edifice makes it far more attractive than those domical churches which are adorned with pagan porticoes, having the beauty of classical columns and a sculptured pediment.

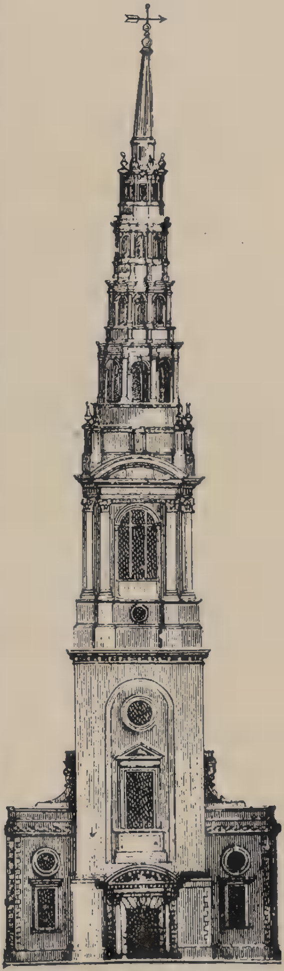
FIG. 238.



CATHEDRAL DE VITRY-DE-FRANÇAIS.

§ **Renaissance Church with the Western Tower.** The distinction between the nave and the side-aisles (Fig. 239) is marked in the exterior by a low clerestory over the nave. Horizontal lines terminate both the body of the church and its clerestory. The disappearance from view of roofs is characteristic of all Renaissance churches. The banishment of every reminder of mediæval art is to be noticed in this exterior. The windows are four-cornered, with projecting cornice, and above them are placed circular windows. The portal in the tower is composed of pillars and architrave, with a semicircular gable above. The window of the tower is a repetition of those in the walls of the church. The belfry-story has four faces, each having two columns with an architrave and semicircular gable. The spire is a series of four stories, diminishing in diameter as they rise. The structure is finished with a finial. There is great height here as compared with the elevation of the nave, but there is lacking that grace and beauty which charms in the Gothic tower and spire. This, however, is to be said when a

FIG. 239.



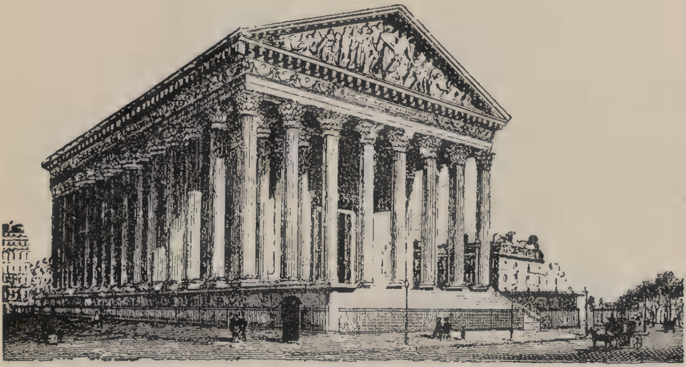
CHURCH OF ST. BRIDE'S, LONDON.

review of the types of the Renaissance churches is made, that the architects of the style succeeded in destroying the churchly appearance of an edifice when they made the dome and classical portico the dominant features; but that they succeeded in producing churches that seemed religious and not civil buildings, when they adopted the tower, banished porticoes, and employed the orders to decorate portals and ornament clerestories.

§ **The Grecian Temple as Church.** There was much to commend, when Christians ascended the hill of Athens, upon which the Parthenon stood, and converted its beautiful but desolate temple into a Christian church. It was, at least, a most convincing argument that Christianity had overthrown paganism. But what can be said in favor of that spirit which led the Christians of Paris in the eighteenth century to reproduce the Parthenon as a Roman Catholic church? The Madeleine, of Paris (Fig. 240), is the Roman Catholic Parthenon. As a work of architecture it is a successful imitation. The colonnade of fifty-two Corinthian columns, each forty-nine feet high and sixteen feet in circumference, make a peristyle which may challenge comparison with the best work of the Greeks. As an ecclesiastical edifice, if it is anything, this building is a great Christian symbol of the Renaissance. Artists had vied with each other in portraying Magdalen as a most beautiful woman, under the reproach of the world, but saved from despair by the winning mercy of the Christ. The architect has symbolized this act. He rescues the noblest pagan religious structure, and enshrines within it the merciful religion of the Christ. The alto-relief in the pediment of the southern porch is colossal, being one hundred and twenty feet in length and twenty-four feet in height.

Here Magdalen kneels at the feet of the Christ, and on the right of the Master are the angels, Mercy, Innocence, Faith, Hope, and Charity; on the left the Angel of Vengeance drives away Hatred, Unchastity, Hypocrisy, and Avarice. Condemn this group, then condemn the temple-church. But the pagan churches of St. Peter's at Rome, and St. Paul's at London, have no such justification.

FIG. 240.



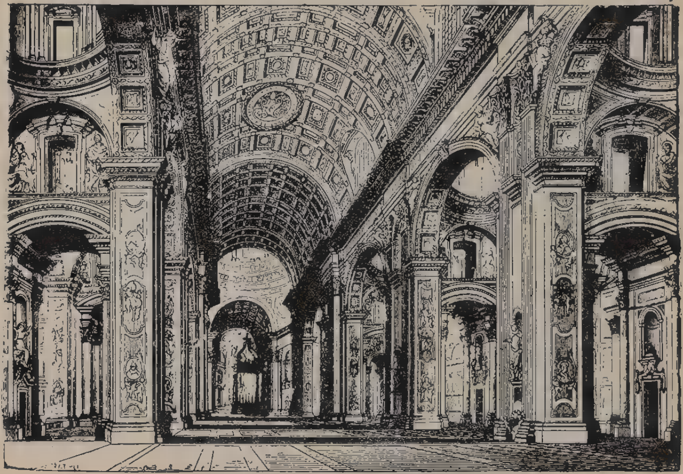
CHURCH OF MADELEINE, PARIS.

C. RENAISSANCE INTERIORS.

§ **The Nave with Arcade and Cylindrical Vault.** The magnificent nave of the basilica of St. Peter's at Rome (Fig. 241) presents a series of lofty, ponderous arches, poised upon massive piers. Each nave-bay is one astonishing archway, with beautiful entablature above. The cylindrical vault rests upon the top of the arcade. A glance will reveal the mode of decoration. The great piers are adorned with paneled pilasters. The broad arches of the nave are coffered; so, also, is the ceiling.

§ **The Domical Aisle-bay.** Each aisle-bay of St. Peter's (Fig. 241) is primarily a light-aperture for the nave; for the aisle-bay is a dome-vaulted compartment of the same height as the nave. There is a gallery and a clerestory in this aisle-bay, and a doorway from one bay to another. Light pours down into this bay, and the lofty archway of the nave gives it unobstructed entrance into the church. The interior of St. Peter's makes one feel as if the garments of a palace were hung on the walls of a church, banishing therefrom that sacred mantling which priest and layman had made honorable in Romanesque and Gothic times.

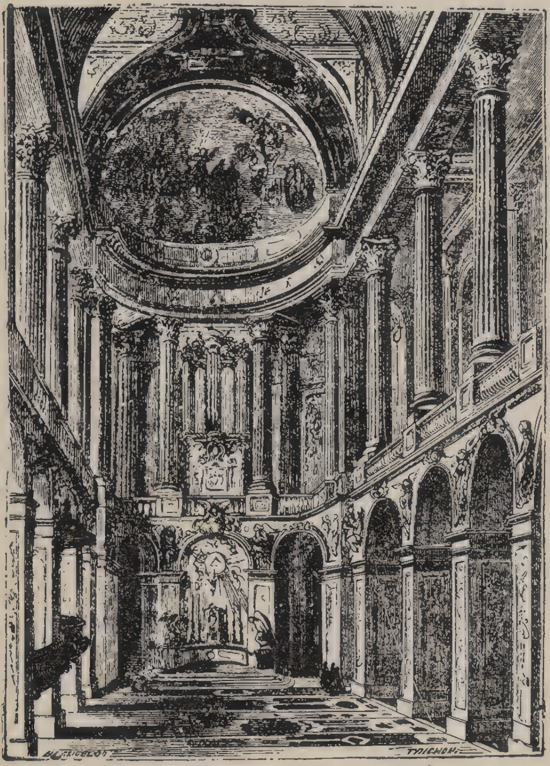
FIG. 241.



INTERIOR OF ST. PETER'S, ROME.

§ **Nave with Gallery and Cylindrical Vaulting.** The nave-bay of the Chapel of Versailles (Fig. 242) is bipartite, consisting of an arch upon square piers, and a portion of an upper colonnade between two columns. The architrave above the columns supports the cylindrically vaulted ceiling. The choir is semicircular, and its bays are bipartite, like the nave. This place is a palatial room, consecrated to religious use.

FIG. 242.



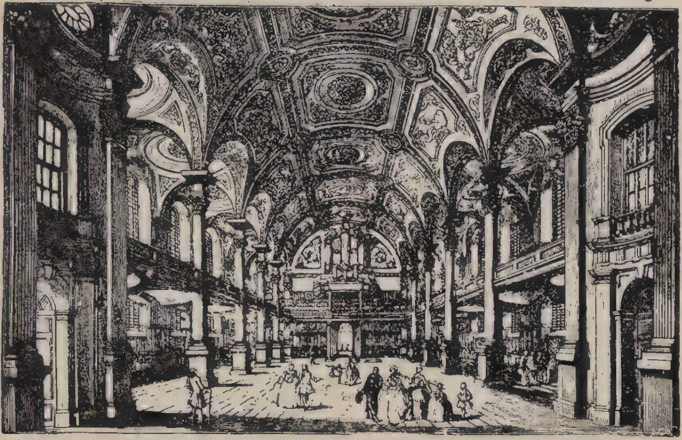
CHAPEL AT VERSAILLES, PARIS.

§ **Decorations of the Nave-arcade and Colonnade.** The square piers of the arcade (Fig. 242) present attractive surface for panels with artistic designs. The broad face of the arch is treated as the roof, and beautifully coffered. The arch-spandrels have statuary set in them. The cornice and gallery-balustrade make the horizontal termination of the lower arcade. Beautiful composite columns and a splendid architrave adorn the upper colonnade. Then there is seen between its columns the paneled flat ceiling of the gallery, and above the architrave the ornamented cylindrical ceiling of the nave. All this would make a wonderful covered court for a palace; yet all this is a Roman Catholic Church. The altar is in the choir, but the blaze of the "glory" behind it, and the angels before it, kneeling down in its overpowering light, are all spectacular, theatrical, and not conducive to holy meditation. The choir-windows encompass a cross and crown, yet such a cross in form as might dangle from a court lady's neck to increase her artificial charms. The arched ceiling above the nave is adorned with paintings of the best modern artists, and contributes greatly to the surprises of this interior.

§ **Cylindrical Vaulting with Discontinuous Architrave.** This type is the Renaissance hall-church. St. Martin's-in-the-Fields, London (Fig. 243), is an excellent example. Its nave-bay is bipartite, having aisle-openings and gallery; the ceiling is a cylindrical vault. The construction of this nave is most remarkable. Tall, slender columns space the nave into bays. From their summit are sprung longitudinal and transverse arches, which are used as ribs for the vaulting, and, by skillful contrivance, the nave is covered with a ribbed cylindrical vault. The architrave is discontinuous. A horizontal beam with cornice is set in the columns about midway of their height, and a gallery with a balustrade is built from these beams to the walls of the church.

§ **Decoration of the Ribbed Cylindrical Vault.** Generally the same mode is followed which is present in the cylindrical vaulting of St. Peter's, at Rome. There the vaulted rooms on the side poured in the light to the nave, and the beauty of the side-galleries, as seen through the great arches of the nave, enhanced greatly the attractiveness, as well as the impressiveness, of the nave.

FIG. 243.

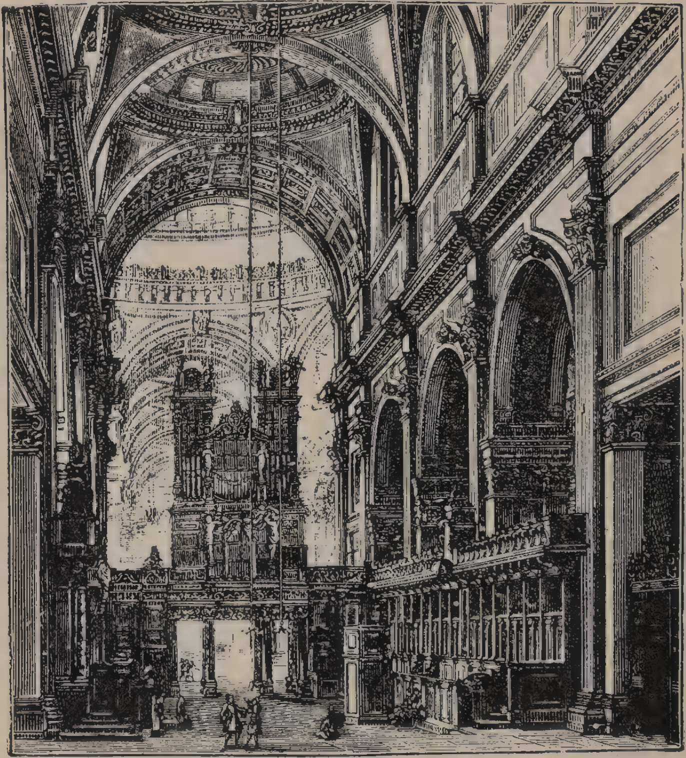


CHURCH OF ST. MARTIN'S-IN-THE-FIELDS.

Here the domical vaults (Fig. 243) over the bays of the side-aisles are seen from the nave, and these domical vaults are so brought into view that they appear but one part of the great ceiling above the hall-church. It, of course, is expected that the details of this ceiling decoration should vary according to the taste of the time. Sometimes ornament was lavished excessively everywhere on the surface; at other times ornament was simple, modest, if not ecclesiastical, revealing a love for the beautiful apart from all religious associations.

§ **The Nave-arcade with Domical Vaults.** The nave of St. Paul's, London (Fig. 244), is interesting, not alone for the masterly handling of the elements which enter into its construction, but because it brings back into use the earliest form of bay found in ecclesiastical architecture. This bay is the Basilican, and is tripartite, consisting of the nave-arch, the wall-space above, con-

FIG. 244.



CHOIR OF ST. PAUL'S, LONDON.

verted in the Byzantine and Romanesque styles into a gallery, and in the Gothic style into the triforium. The highest part of the bay is the clerestory. The Renaissance architect changed the ratio which existed between the individual parts in the basilicas, substituted piers with beautiful side-pilasters for columns as the supports of arches, placed a magnificent architrave above the arches, which the Basilican architects had almost discarded, and increased the height of the clerestory, adorning it with windows of graceful proportions. The domical vaults over the nave rested on transverse and longitudinal arches. The soffits of the cross-arches were adorned with such forms as harmonized with the ornaments of the capitals and the architrave. The disposition of all these beautiful forms was skillfully accomplished, and the edifice may be justly esteemed as a magnificent architectural creation. The central dome above the crossing throws a wonderful effulgence of light upon the classical splendors of the interior. But as a place of worship, instinct everywhere with suggestions of the Christian faith, this church is a colossal failure. More and more the English people are converting it into a splendid mausoleum for the interment of their mighty dead, whether the heroes be those of war or those who, in peace, wrought great good for the nation. St. Paul's, as the tomb for the great among a nation's dead, is a noble monument; as the embodiment of the religious aspirations of the great Christian English nation, the Cathedral of St. Paul is strikingly deficient. Its classic splendors would be now a beautiful frame for the Christian art of modern England. The recent religious painting of England is of the highest order, and some of her artists' work in the open spaces of St. Paul's would be a merited recognition of their genius, and endear this cathedral to Christian thought.

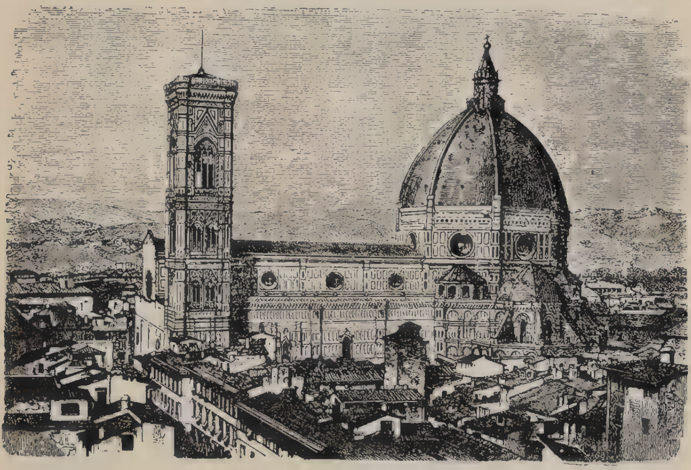
D. THE PERIODS OF THE RENAISSANCE STYLE.

(1) EARLY RENAISSANCE.

§ **Early Renaissance.** This period is included between 1450 and 1500. Italy was the garden-spot in which the new architecture first grew and blossomed. Soon other lands gave fertile soil for the new art. It was an architecture of palaces rather than churches. It appealed to the luxurious demands of wealth rather than to the spiritual needs of religion. Hence the neglected beautiful forms amid the ruins of ancient Rome became precious legacies to the early Renaissance architect. Churches received additions, executed under the inspiration of this love for classical Rome. The chapels and tombs within the church, the choir and western façade without, were adorned with new beauty owing to the introduction of classical forms and decoration. Yet there was no imitation. Resemblance alone was sought. Hence the early Renaissance is more independent and original than the perfected period. The designs on capitals involved leaves and volutes; but these were not imitative of Corinthian capitals. Friezes were carved with innumerable forms, as delicate in their execution as if wrought out in silver. Sculpture was at its best in this period.

§ **The Early Renaissance Dome.** Italian Gothic has its finest example in the Cathedral of Florence (Fig. 245). The citizens instructed its architect to surpass all other cathedrals. The aim was the highest, the achievement most remarkable. Externally, omitting the campanile and dome, the edifice is a Romanesque structure with Gothic features. The campanile is a beautiful Gothic tower, adorned in the Italian Gothic style, with surfaces so richly inlaid that they seem to be a Gothic mosaic. Giotto, the architect, intended it to be completed with a spire. The magnificent dome above the choir was designed by Brunelleschi, and built in the period of 1421 to 1436. No dome in the world has so great magnitude, and Michael Angelo could conceive nothing more magnificent, and so imitated it when he placed in St. Peter's his lofty dome above the crossing.

FIG. 245.

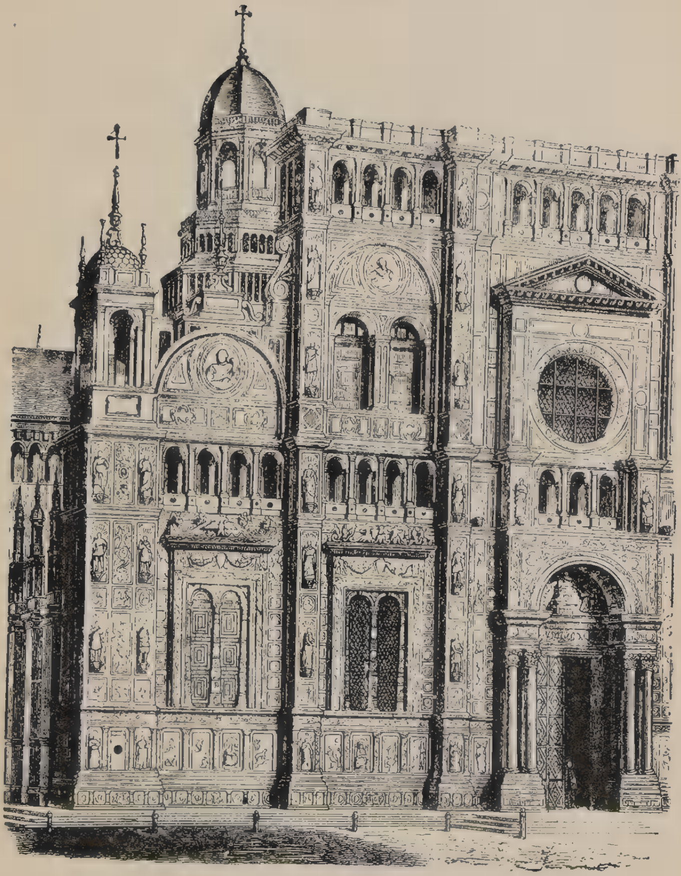


CATHEDRAL AT FLORENCE.

This remarkable dome is considered a Renaissance structure, inspired by the study of the remains of ancient Rome. The dome, as the roof over a large space, was first built by these magnificently daring Romans, but further than this fact, this dome of Brunelleschi owes nothing to the Romans, or, at least, nothing more than the nave of the church owes to classical architecture. This dome is simply a magnificent groined vault, with an astonishing height. The ribs are buttressed by great piers around the sides of the dome. Therefore, the structure is Gothic in the principles which govern its erection. The ribbed vault was used above the crypt in the Latin basilica; the architects of the Romanesque basilica placed this ribbed vault above the side-aisles; Gothic architects made the ribbed vault to roof the nave; Brunelleschi lifted the ribbed vault from within the church and placed it as the exterior roof above the choir, giving, at the same time, a new architectural character to this form of structure. This new use was inspired by the spirit of the Renaissance.

§ **Early Renaissance Front.** There was not vigor enough in the early Renaissance to construct edifices which had in their structure nothing reminding worshipers of those churches which were erected in the Middle Ages. Yet it did dare to reconstruct and ornament the façade wholly in conformity to classical principles and taste. The façade, and also the dome of the Certosa at Pavia (Fig. 246), present the finest of examples, showing how completely the classical ideas had obtained possession of the public mind. This Renaissance front is a screen before the church, having a partition of its surface into divisions by means of buttresses, after the fashion which was employed in the screen before the Church of St. Mary's (*vide* Fig. 190), at Brandenburg. Here, however, the resemblance to a Gothic form ceases. All else is classical. The treatment of the partitioning buttresses is to be first considered. Each buttress, except the corner ones, is practically composed of two square columns, one above the other, thus dividing the screen into two stories. The lower one is the more massive. Mouldings are on these buttresses, indicating the pedestal, the capital, and the string-course between the upper and lower story. Statuary are set in these square columns. The spaces between these buttresses are next to be considered. The central space is occupied by the portal. Pier-columns, with engaged decorative columns, make the door-posts. The architrave is hollowed below into a round arch. Above is an arcade.

FIG. 246.

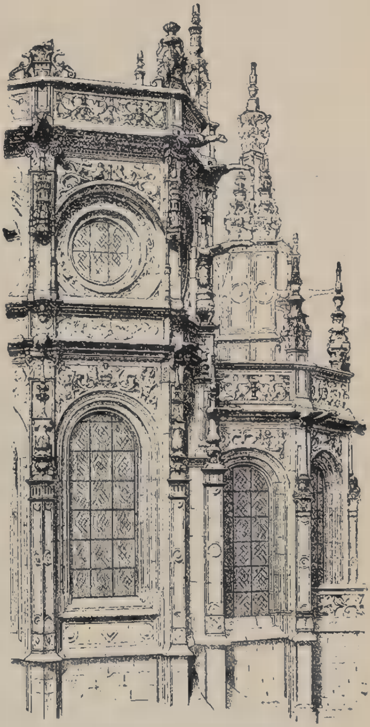


CERTOSA AT PAVIA.

The second and upper division of the portal consists of square columns, supporting a pediment; within the columns is a circular window. The upper termination is an arcade. It is to be observed that this arcade is in reality a classical colonnade, with arches built under the architrave. There is not, therefore, a single Gothic or Romanesque feature in this division of the façade. All is Renaissance. The treatment of the window-aperture is all that need occupy attention in the other perpendicular divisions of this façade. The lower window is a rectangular opening between pier-columns with lintel and a heavy cornice. Above this cornice are sculptured forms. The window of the second story is similar, except that a semicircular gable, not a cornice, completes it above. Each window is bipartite, and contains round arches. Likewise we notice, in connection with the windows, a complete abandonment of all previous window-forms and ornamentation. The cupola above the crossing makes no pretentious claim to notice, but one feature is to be observed, as indicating how Gothic forms often suggested structural features in this early period. The base of the cupola is composed of successively decreasing polygonal stories, like the tower for the Gothic spire; yet these stories are classical colonnades of different height, wherein not the arch, but the architrave, appears.

§ **Early Renaissance Choir.** The choir of St. Pierre, in Caen (Fig. 247), is our example. This choir is Gothic in its several constructive parts and in its ornamental divisions. The form of buttress is familiar, being similar to those slender buttresses which were employed in the later Gothic styles. The balustrade, with a finial above it, is a Gothic construction. But the Renaissance has touched every part with change, transforming the whole impression of the choir-façade. The horizontal divisions are made most prominent; the window is circular in the clerestory. The finials are not pyramidal, as in the Gothic, but ornamented posts, while the gargoyles seem to furnish a great variety of the animal head. Relief ornament of scroll and vine, entwining forms, suggestive of man, beast, and bird, are in the spandrels of the arch and in the frieze-bands. All this variety is classical, originating in a time when the artist took nature's forms and modified them in order to add attractiveness to his edifices. But this spirit is vastly different from that of the Gothic artists, who took nature's forms and placed them in his cathedrals, reverently believing that they showed forth the handiwork of the Creator.

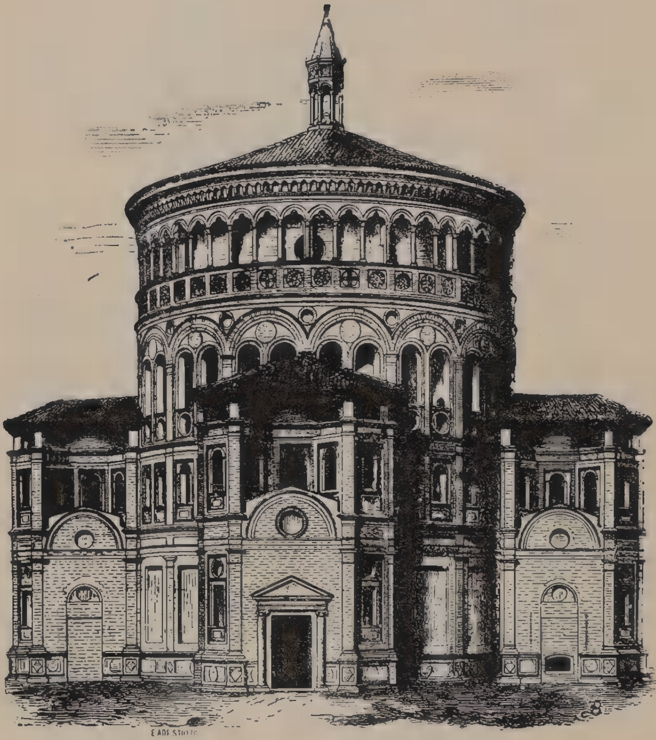
FIG. 247.



CHOIR ST. PIERRE.

§ **The Early Renaissance Church.** A distinctively Renaissance edifice is the Church of S. Maria della Croce, at Crema (Fig. 248). It is not meant, by giving this church as an example, that there are many of similar type, but simply that the whole spirit of the building is classical, and that it is one of the earliest churches in which classical constructive principles, as well as classical modes of adornment, dominate every part. The

FIG. 248



ST. MARIA DELLA CROCE.

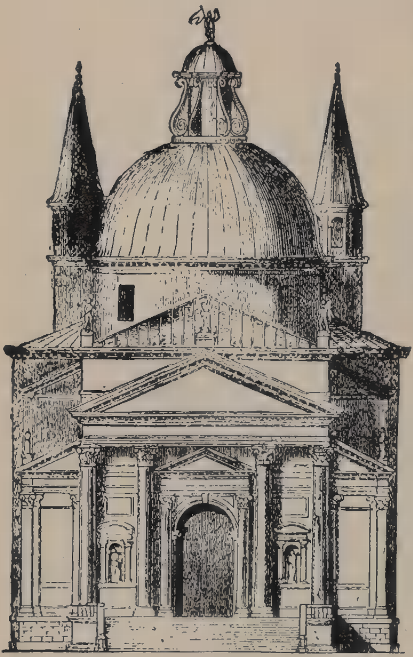
church is a central circular structure with four arms attached thereto. The cylindrical center is builded by means of stories, after the manner of the Roman Coliseum (*vide* Fig. 23). A low roof covers this part. The arms make transepts, entrance, and choir. It is a strange and new form for a church. The instructiveness of this building is mainly in the fact that it shows how the trend was to develop an architecture for the Renaissance church entirely unlike those of the Middle Ages.

(2) PERFECTED RENAISSANCE.

§ **Perfected Renaissance.** The highest development of the Renaissance style was accomplished in the sixteenth century. The ecclesiastical building during this period lost all resemblance to the mediæval basilicas and cathedrals. The Renaissance church is the representative of a practically independent architectural creation. The dome of Brunelleschi, the temple porticoes of ancient Rome, the employment of the classical columnar orders, constituted the three most important structural peculiarities in the new style. The work of Vitruvius upon the Architecture of the Ancients furnished the precepts for Palladio, who excelled in his handling of the columnar arrangement at entrances. Palladio and the classical portico for churches are quite inseparable thoughts in the architecture of the Renaissance. Vignola, in this century, championed the movement which imitated closest the classical models. He produced a work on the five columnar orders of antiquity, which is an authority unto this day. But Michael Angelo was the commanding genius of this period, and his works became types which have reappeared very often in later times.

§ **The Type of Palladio.** The Latin basilica was a long, gable-roofed colonnade as a central structure, buttressed on the sides with shed-roofs. The Byzantine basilica was a central domical structure, buttressed by an inclosing square with roofs, having slight pitch, like those of classical buildings. The roof, therefore, is not conspicuous. The clerestory is an essential of the Latin basilica. Palladio made the Latin basilica his fundamental form, and produced a new type by modifications at the porch and in the roofing. The Church of St. Savior's, at Venice (Fig. 249), illustrates his type. The porch is like the portal of a classical temple. The clerestory is made by the three domes over the nave. The Church of S. Maria della Salute, at Venice, is a beautiful variation of this type, having two domes to cover the nave instead of three. The portal feature of the Palladio church was that most widely copied.

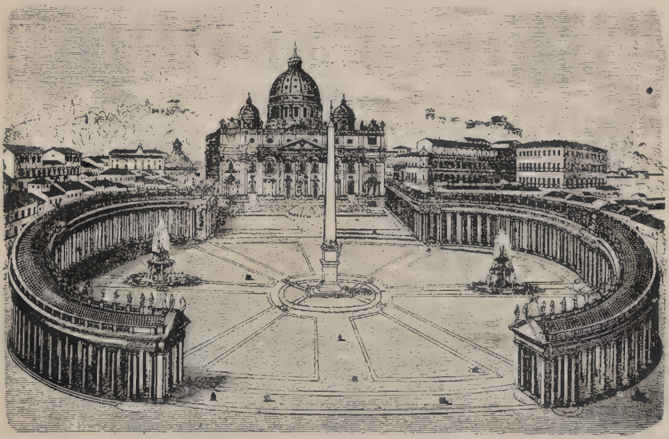
FIG. 249.



ST. SAVIOR'S, VENICE.

§ **Type of Michael Angelo.** The Byzantine basilica was the fundamental form which Michael Angelo retained in thought when he was called to complete St. Peter's at Rome. Bramante had projected the new edifice, which was to be the throne of the Pope, after that splendid St. Sophia, which had been the glory of the Greek Christians for almost a thousand years. Angelo retained the form of the Greek cross, and then developed that new type among the perfected Renaissance edifices which the Cathedral of St. Peter's embodies. His plan was simple, his structure gigantic. The main feature of the building (Fig. 250) was the dome above the crossing. The mode of its construction was borrowed from the dome of Brunelleschi, at Florence. The magnitude of its proportions was adopted from the wonderful Pantheon of ancient Rome. Four small domes were placed at the angles of the cross. Walls then were made to inclose the square. There were lower and attic stories, having window-openings modeled after the classical forms of the Renaissance, and porticoes like those before the ancient temples. Angelo lived to complete the drum of the dome; yet he left a model of the dome, in accordance with which it was completed. When the façade was to be added, Paul V directed that the nave

FIG. 250.

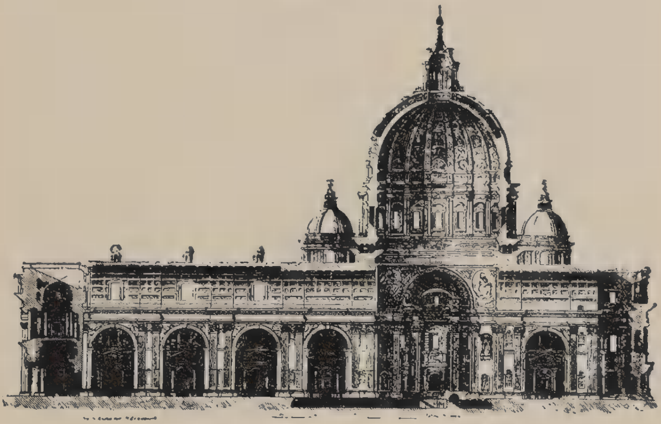


ST. PETER'S, ROME.

be prolonged, converting thus the plan of the church into the form of a Latin cross. One has said "that this grand basilica is the seat of a power to which the throne of the Cæsars was but a shadowy toy." The approach to this noble edifice is majestic. The lofty colonnades of Bernini sweep toward the edifice in a magnificent semicircle. Central in this circle, surrounded by columns, is an obelisk one hundred and thirty feet high, the gift of Egypt. Here are splendid fountains, whose sparkling waters fall into gigantic basins of porphyry. Beyond is the dome, in diameter one hundred and thirty-eight feet, in altitude four hundred and thirty-five feet. The cupolas about the drum elsewhere would be of imposing magnitude. As one passes beyond the obelisk, there begins to dawn upon him the wonderful size of the structure. The portico impresses with its greatness as soon as the dome is lost to sight. Columns here are found ninety-three feet in height and nine feet in their diameter. Statues are seen on the upper termination of the façade, representing Christ and the College of the Apostles; each statue is no less than nineteen feet in height. This church is St. Peter's, an edifice pagan in all of its outward seeming, yet made the shrine for the most ancient of Christian traditions, and the throne of the mightiest ecclesiastical potentate that has grown up within the history of Christendom.

§ **Interior of St. Peter's.** Beneath the dome (Fig. 251) one must stand if he would comprehend the vastness of this sacred hall, equaled in size by no similar structure of the human hand. The eye pauses, in its look upward, first at the colossal symbols of the Four Gospels in the dome-pendentives; then it reads the inscription, wrought in the magnificent frieze: "*Tu es Petrus, et super hanc petram ædificabo ecclesiam meam, et tibi dabo* *claves regni cælorum*," which, being interpreted, is, "Thou art Peter, and upon this rock I will build my church, and to thee I will give the keys of the kingdom of heaven." Upward still the eye climbs by the circle of classical windows, glances between the ribs of the dome, where are beautiful mosaics, and pauses when it reaches the lantern of this matchless dome. Scarcely less impressive than this view of the dome is the sight of the four vistas, which the transepts and the nave with the choir, presents. Pavements of variegated marbles, vaults golden with starry splendors, bold entablatures on magnificent Corinthian pilasters, make most wonderful surprises along each of these opening vistas. But the look down the apse, a distance of one hundred and sixty-four feet, produces the climax. Here is the presbyterium, the chair of St. Peter, behind which is the "glory," a golden sun surrounded with masses of orange-colored clouds, wherein are seen basking the hallowed

FIG. 251.



INTERIOR OF ST. PETER'S.

faces of heavenly cherubs. Place in their chairs along the presbyterium the members of the sacred college, each in gorgeous apparel, and in the chair of St. Peter, the Pope, in his robes of splendor; then let the sunlight touch into brightness the "glory" behind them, the scene becomes one of unparalleled barbaric splendor.

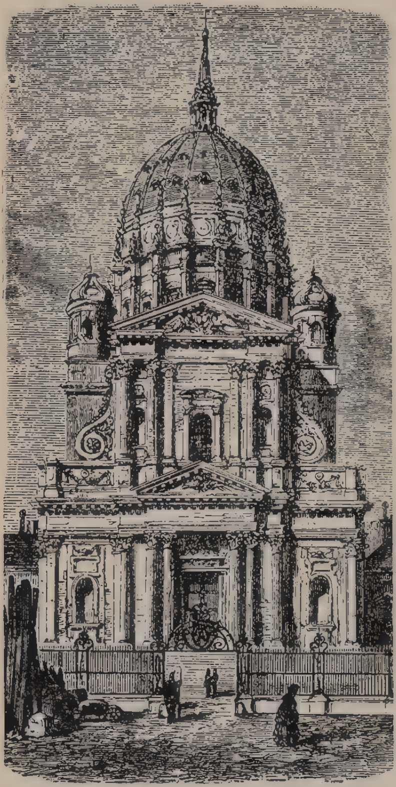
§ **Features of the Perfected Renaissance.** There was in this period a complete severance from mediæval architecture. Classical forms usurped the place of ecclesiastical models. The façades were walls, having horizontal divisions, effected through string courses and prominent cornices; perpendicular divisions, effected through the pilaster and engaged columns. The portal, with its ample arch, gave way to the portico with its architrave, cornice, and pediment; the arched window was supplanted by the window-post and lintel, with the pediment above. Not the tower and spire, but the commanding dome, claimed attention as the dominant external attraction. Interiors were splendid colonnades, wherein reappeared the columnar forms, such as Greece and Rome, in palmy days, had originated and developed. The cylindrical vault roofed the whole nave, or else the bays of the nave were covered by domical vaults. Column and architrave, frieze and cornice, abounded in richest of sculpturings. Vines and flowers, masks and shields, satyrs and hermes, statuary and painting, scrolls and pattern-work, were combined into most striking decoration. They call all this mixture the banishment from our daily walk of ascetic sadness, the removal from among us of pessimistic views of this world-life of ours, the signs of the return of joy and gladness to modern life. Be that as it may, it is infinitely inferior to the signs of joy and gladness in a Christian faith, which appear everywhere on the walls of the noblest mediæval cathedrals.

(3) LATE RENAISSANCE.

§ **The Late Renaissance.** The period of time included in the late Renaissance is between 1600 and 1800. There are three well-defined movements in architecture during these two centuries. A style called the Baroque, or Rococo, reigned during the seventeenth century. The architecture of this Baroque style differs little from that of the perfected Renaissance so far as the maintenance of classical forms is concerned. The difference was in a complete departure from the judicious employment of ornamental forms, substituting, for this moderation, a prodigal display of decoration. From 1700 to 1770 the Jesuit style, a phase of the Rococo style, dominated in churches, and was characterized by fanciful modes in decorative matters, and by a license to alter forms according to the caprices of an oversatiated public taste. Civil architecture suffered from the same spirit of license, and so artificial and unnatural were these edifices, or at least prominent features of them, that later times have traced resemblances between them and those periwigs and pigtails which represented the culmination of the courtiers' incessant strivings after dazzling effects. The Jesuit style in ecclesiastical architecture corresponds to the periwig and pigtail style in civil architecture. When the intoxication from this spirit of license passed by, men became obedient to law and moderation, but only such as pagan architecture had taught. Then men returned to the models of Greece and Rome, and developed the Late Classical Revival.

§ **Metropolitan Church, Baroque Style.** The Church of Val de Grace was erected by Anne of Austria, consort of Louis XIII, in Paris, about 1650, as a thank-offering. The plan of the church is that of the Latin cross. The nave has a clerestory and side-aisles with their roof abutting upon the nave-wall. The building (Fig. 252) has the appearance of having a wide lower story and a narrow upper one. It is the Gothic basilica, in which every principal part is fashioned after the manner of the Renaissance style. The suggestions of Palladio are carried out with all the independence of a new creative genius. A portico of Corinthian columns, with a beautiful pediment, constitutes the entrance, and above this structure rises the wall before the clerestory, wherein are engaged composite columns, bearing a second pediment. The buttresses about the drum of the dome are noteworthy. The profusely ornate character of this exterior well exemplifies the excess of the Baroque style. The interior of the church is in harmony with its decorative exterior. The side-aisles are turned into a series of chapels, opening into each other and into the nave. Large figures, representing the Christian virtues in alto-relievo, are set in the

FIG. 252.

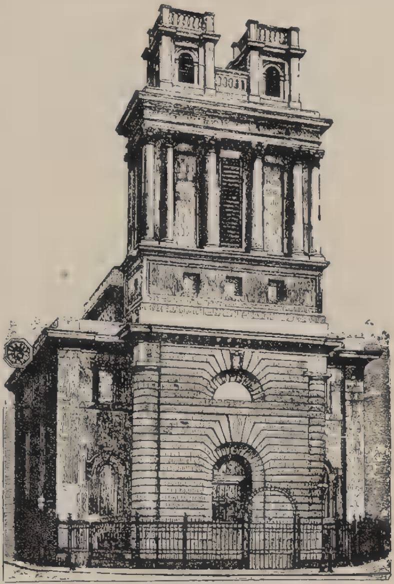


CHURCH OF VAL DE GRACE.

spandrels of the nave-arches. Circular compartments in the pendentives of the dome have figures of the evangelists also in alto-relievo. The vault of the dome has fresco painting unequaled elsewhere in France. This church, barring its excess of ornament, is one of the most churchly of all Renaissance types.

§ **Parochial Church, Rococo Style.** The Church of St. Mary, Woolworth, London, built in 1727, exhibits in its small compass the extravagances, as well as the license, of this period of the Renaissance. The body of the church (Fig. 253) recalls the forms of Egyptian temples, because of its high, solid, gloomy walls, at the corners of which are tall, pilaster-like columns. The lower portion of the tower reminds one of those Italian palace-fronts, where courses of unhewn stones were made to resemble corner-columns and decorative designs. The middle portion of the tower would make an exquisite rock-temple tomb, such as one meets in walking down the Valley of Kedron, under the walls of Jerusalem. And the two small upper turrets show the might of the spirit which animated this style; for the Rococo style

FIG. 253.

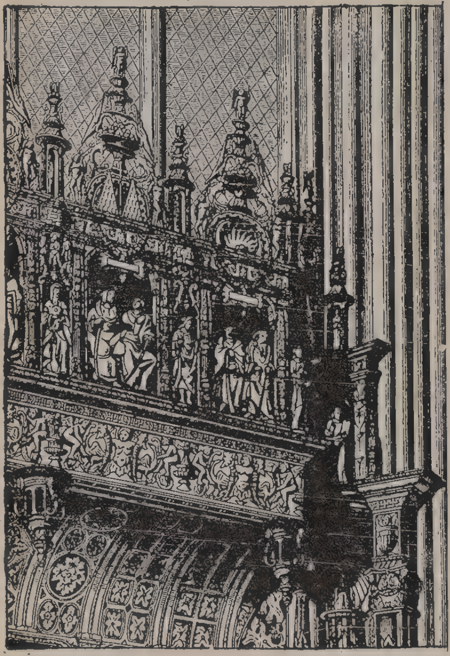


CHURCH OF ST. MARY, WOOLWORTH.

first minified existing noble forms, and then set these miniatures together, one by the other, without any regard to harmony of structure. This Rococo style is an architecture most theatrical in its surprises. The Jesuit loved it; but this is not strange, since he is, above everything else, a superb actor.

§ **Baroque Decoration.** No truth is more commonly illustrated in ecclesiastical architecture than that decay commences so soon as enthusiastic love of any new development becomes supplanted by ability only to imitate and beautify existing forms. Originality, at these times, consists either in multiplying the number of the imitated forms or in a lawless license, which appropriates any form, and places it in any combination, and thus the artist defies any rational interpretation of his arrrangement. Baroque decoration is not displeasing where redundancy of imitated forms appear. The

Fig. 254.

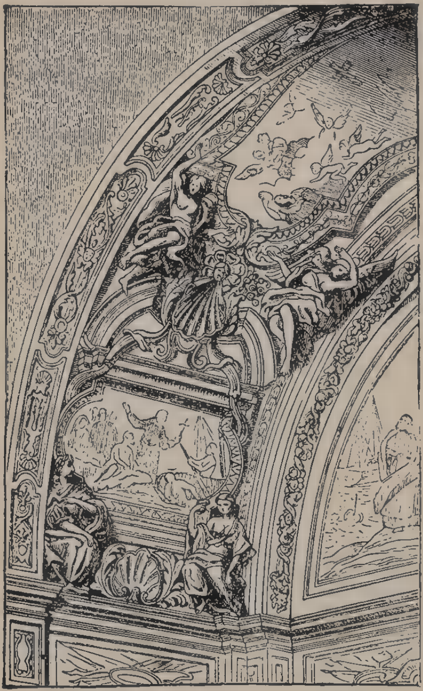


FROM TOMB OF CARDINAL D'AMBOISE.

section from the tomb of Cardinal d'Amboise, Rouen (Fig. 254), presents us with an excellent example. In the concave of the canopy we see a beautifully-coffered ceiling, whose geometrical forms are very attractive. The cornice above is ornamented with urns and cornucopias, used as seats or as playground for elfs and cupids. Niches are placed above this cornice, wherein are symbolical groups. The upper termination of the tomb is an architectural bazaar of sculptural ornamental forms. Caprice reigns here quite supreme. Statues, conchoidal shapes, scrolls, interrupted pediments, flowers, fairies, anything that can be beautified, all become accessories to the decoration of the Baroque style. All this display of manifold as well as of beautiful ornament may justly challenge attention because of its skillful execution. But its condemnation is that the artist sought only to win admiration. Beauty alluring to great truths is eternal; but beauty, appeased with admiration is as ephemeral as a butterfly—a beauty whose days are few.

§ **Decoration of the Jesuit Style.** A portion of an arch, taken from the Jesuit Church, Rome (Fig. 255), will show the peculiarities of this style. It is to be noticed that a combination of fresco painting and statuary dominates this decorative mode. Observe the four human figures, contorted so as to be gracefully squeezed into their assigned places. The escalop is here and there wrought into the design. It is a symbol connected with Palestine, but little else here savors of Christian associations. The great aim of this style of decoration was to turn vaulting surfaces into a kind of heavenly canopy, resplendent with gold and blue. The divisions of vaulting surfaces were often ignored because the vault was regarded as an unbroken whole, and made the background for a single artistic composition. Sometimes sculpture furnished to painting a wing or an arm, in order to give to a fresco more realistic appearance. Hence, in this style we have angel's wings or arms set into the wall, and about them there is the blaze of color and gilt. Yet the decoration of the Renaissance must not be judged by these extravagances; for, although its decorations are entirely separated from the great associations inseparably connected with the decorations of mediæval styles, yet they are conceived under the love of beauty and symmetry, and executed with a patience and a skill that win for them continued and abiding admiration.

Fig. 255.



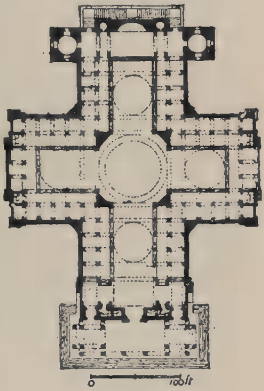
FROM JESUIT CHURCH, ROME.

(4) LATE CLASSICAL REVIVAL.

§ **Late Classical Revival.** The close of the eighteenth century witnessed general disgust with the freaks and lawless fancies of the Rococo style. The cause for the change was profound, being the growth of the democratic idea as a formidable foe to the monarchical control of civil governments. The monarchists of the Church were the Jesuits, those of civil governments were kings and princes. The Rococo edifices, when ecclesiastical, were Jesuit churches, when civil, were royal palaces. The public mind required change from what disgusted it, and so was diverted by the erection of most pretentious buildings, both for the State and the Church, in a style which offered strongest contrast to the style of the late Renaissance. This new style was the Late Classical Revival.

§ **The Pantheon at Paris.** This edifice was designed and built for a church under the reign of Louis XV, having the name of the Church of St. Genevieve. It was converted at the time of the first republic to a Temple of Glory, and received the name of Pantheon. Since then it has been returned to the Catholic Church, and has resumed its original name. The plan of the church (Fig. 256) is that of a Greek cross, with a splendid portico for the main entrance. The crossing is covered by a beautiful dome, and there are smaller domes in the arms of the cross. A gallery, extending along the walls of the interior, is supported by Corinthian pillars. Massive piers of masonry make the foundation of the dome. These piers have bronze memorial tablets upon them. The dome is sixty feet in diameter at the gallery. The fresco work in its great concave is most interesting. Immense stone vaults on Doric columns are

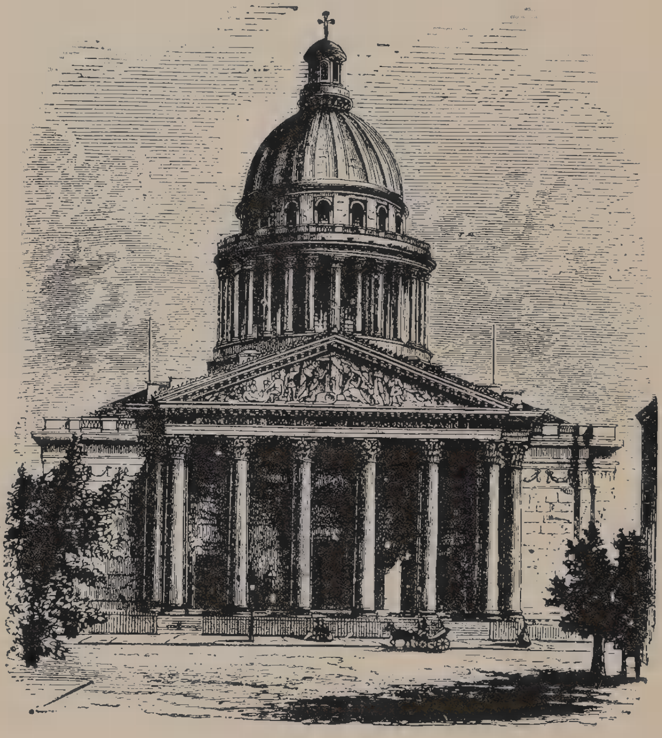
FIG. 256.



PLAN OF FRENCH PANTHEON.

beneath the church, where the illustrious of France receive final resting-place. The exterior of the Pantheon (Fig. 257) will present features which belong to the Roman Revival, and should be compared with the Madeleine (*vide* Fig. 240), which illustrates the Greek Revival. The portico of the Pantheon, extending along the whole breadth of the front, has in it six fluted Corinthian columns, each sixty feet in height and six feet

FIG. 257.

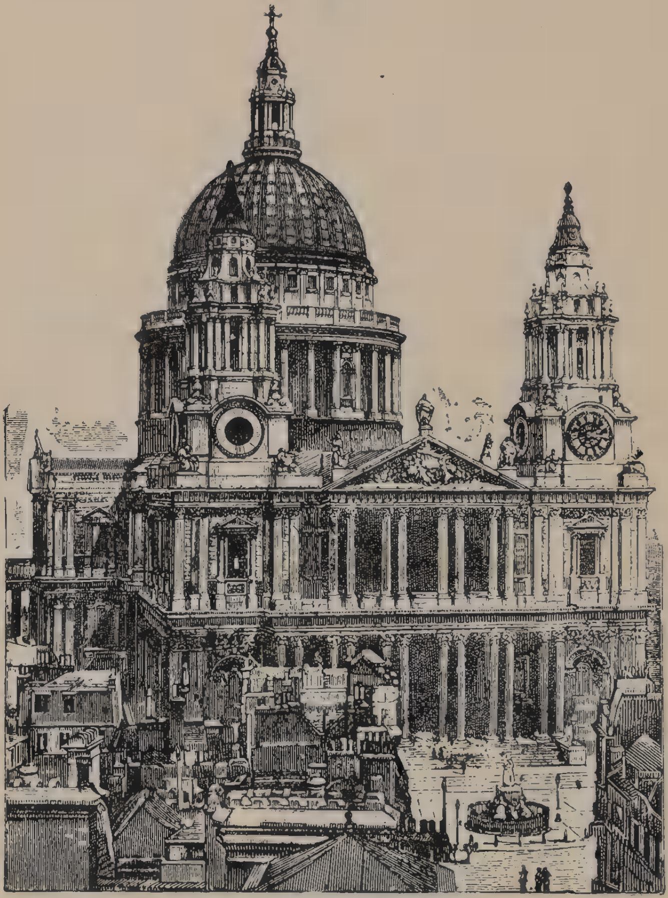


PANTHEON, PARIS.

in diameter. The triangular pediment is one hundred and twenty-nine feet in breadth and twenty-five feet in height. Thus it is seen that the building is colossal. The composition within the pediment represents France distributing honors to her illustrious citizens. The circular drum of the dome is surrounded by a peristyle of thirty-two Corinthian columns, resting upon a stylobate. The top of the dome above the pavement is two hundred and sixty-eight feet. This noble building was inspired in its architecture by an ardent love of pagan and ancient Rome. The cost was defrayed by a lottery. The revolution, which dethroned and beheaded a king, and made God a fiction in the popular mind, took this same structure for a Pantheon, and here, in 1791, the Apotheosis of Voltaire and Rousseau—no friends to religious thought—took place. Strange origin for a Christian Church, strange vicissitudes for a house of God! It was well for the State to return the structure to the Roman Catholic Church; for now God will be recognized within its stately precincts.

§ **St. Paul's, London.** Thirty-five years of labor, directed by one architect and one master-builder, were crowned with most distinguished reward when St. Paul's stood complete, the most imposing of all modern structures in England. The exterior (Fig. 258) is two-storied, and of the Corinthian order, and, by its symmetry and beauty, excels the charms of St. Peter's at Rome. The lofty dome, whose summit is three hundred and sixty feet above the pavement, is a most worthy compeer of the domes belonging to the French Pantheon or the Roman St. Peter's. Mighty buttresses could alone give stability to this domical structure, and they were hidden behind the columns and walls of the second story. The dome externally is similar to that above the Pantheon,

FIG. 258.



ST. PAUL'S CATHEDRAL, LONDON.

being a magnificent drum surrounded by a beautiful peristyle, and upon the drum rests the crown of the dome. The stone lantern, which rises above the dome, is supported by a brick cone, which is built centrally within. The western façade is a two-storied classical portico, flanked by towers. Sculpture was employed to beautify column, frieze, and pediment; but there is no attempt to produce such symbolical groups as are present in the French Pantheon. The ground-plan (*vide* Fig. 233) is the Gothic cross, being narrow, with great length in its nave and choir portions. The general mode of decoration in the interior (*vide* Fig. 244) is after the manner of the Renaissance, in which the sculptured column, architrave, and cornice are most prominent. The dome covers the crossing, roofing the space occupied by the three aisles of the nave. A tablet is to be seen over the north door, inscribed with these words: "*Lector, si monumentum requiris, circumspice.*" Standing beneath the dome, beholding its wonderful construction, feeling the greatness of the mind which conceived this edifice, we agree with the Latin inscription, that the building is the most fitting monument for the architect. This cathedral, like Westminster, is a national mausoleum. Here are interred the remains of Wellington and Nelson, not to mention the names of other illustrious dead, who rest within the cathedral's shelter. Here, too, is the great St. Paul's bell in the belfry, which strikes the hours in the daytime and in the nighttime, beating out, with its warnings, the little lives of men. When citizens die the hour afterwards is struck upon the great bell; but when death occurs in the royal family, the bell is tolled, and its deep, solemn voice tells the great city that mourning now has come into the heart of the palace. Mighty are the thoughts everywhere uttered by these great Christian cathedrals.

E. RENAISSANCE ARCHITECTURE IN EUROPE.

§ **In Italy.** The birthplace of the Renaissance architecture was under the Italian skies. The numerous classical monuments of ancient Rome and of Italian Roman cities favored the movement, furnishing great suggestions to the architects of the new style. But freedom from an oppressive ecclesiasticism, and the joy in this new-found liberty, were the originating powers. Three great cities gave names to the three prevailing styles in Italy. Hence we have the Florentine, Venetian, and Roman Renaissance. Florentine ecclesiastical architecture has splendid monuments in the dome of the cathedral built by Filippo Brunelleschi. This great genius also erected the Pazzi Chapel, the churches of S. Lorenzo and S. Spirito. Other artists spread this Florentine style in Tuscany and Lombardy, each adding his own impress on the works directed by his skill. Venice, enthroned in the midst of the waters, also made a style of her own. Decoration, perhaps, constitutes its chiefest peculiarity. Slender pilasters made the frame-work for inlaid marbles and delicate carving. Façades were built wherein each story was a beautiful colonnade with finely-profiled entablature, and the spaces between its columns were filled in with beautiful arched and pedimented windows. The architecture of Venice at this period abounded in beautiful capitals, scrolls, wreaths, and other artistic forms, so beautiful that they seem the appropriate dress-ornaments for the queen of the sea. The Roman style was influenced by three great architects so profoundly that three schools are usually pointed out. Bramante (1444–1514) founded one school. This artist formed his style by a careful study of Roman remains, and conformed closely to Roman models. The Church of S. Lorenzo in Damaso, and the original designs of St. Peter's, are his best works. The rectilinear terminations are prominent in his works, but he fails to give the grace and beauty and variety which are present in the Northern Italian styles. Vignola (1507–1573) established the second school, which was characterized by a consistent use of the columnar orders and by a close adherence to classic models. Michael Angelo was the founder of the third great school in the Roman style. His St. Peter's influenced later Renaissance styles. Simplicity, dignity, magnitude, are the three dominant ideas in the Roman style.

§ **In France**. The introduction of the Renaissance architecture into France was accomplished by the Valois dynasty, and its perfection was attained under the Bourbon kings. Francis I returned from his Italian campaigns enriched, at least, with the knowledge of the wonderful Renaissance works in Italy. He set about to rival them in France. The churches built in this time show that the Renaissance did little more than furnish a new mode of decoration for a building, Gothic in its principles of structure. St. Eustache and St. Etienne du Mont, both in Paris, are Gothic in construction, and the great towers and imposing portal of St. Michel, at Dijon, show mediæval shapes. There were many charms in this mixture of Gothic forms and Renaissance ornamentation. When, however, the Renaissance spirit succeeded in France to such extent as to banish all that was mediæval, there arose a formal classicism which had the merit of being an importation from Italy, and so was foreign to the French genius. The age of Louis XIV impressed upon the Renaissance architecture the results of the French creative spirit. The beautiful domical churches of the Invalides and Val-de-Grace are examples of this period. The decline of the Renaissance followed, and we have all the extravagances of the Rococo style.

§ **In England.** The Tudor style was transitional to the Renaissance in England. The Elizabethan style, which was the first in the Renaissance development, was guided by foreign architects, especially Italian, and it, like the Valois style in France, was Gothic forms upon which the Renaissance decoration was imposed. The Jacobean style introduced the columnar orders, and made the buildings more of the type of classical edifices, but always crudely and without correct judgment. Perfected Renaissance was matured in the last of the seventeenth century, so far as civil edifices were concerned. And Wren, in the eighteenth century reared the noble pile of St. Paul's, a Renaissance church permeated in its every part with the classical spirit.

§ **In Germany and Spain.** The first appearance of the Renaissance in Germany, likewise, was marked by the fact that the mediæval forms were obdurate, and yielded slowly to classical principles. There are often most picturesque effects attained in the German Renaissance churches by the daring combination of pointed features with the most extravagant Rococo ornamentation. The Marien-Kirche in Wolfenbüttel is a good example of the late Renaissance, and the Marien-Kirche in Dresden represents an excellent Renaissance domical church. Spain but repeats in her land the course which the Renaissance had run elsewhere. The new movement secured its introduction as a new mode of decoration. Then columnar orders, as essentials to structure, appeared, banishing the pointed arch. In surface-decoration the Spanish became pre-eminently skillful. They curiously fashioned the surface of a façade or of a wall after the manner of a silversmith. The resemblances of the carved work and its arrangement upon surfaces to the patterns, wrought into silver, suggested the name

Plateresque (silversmith-like) as the appropriate designation for this style. The Cathedral of Jaen was the first in which the principles of the Renaissance building entered into the whole construction of a Spanish church. The Cathedral of Granada is especially remarkable for its magnificent domical sanctuary. The latest stages of the Renaissance in Spain, as elsewhere, degenerated into lawlessness and license in architecture, wherein all approved principles of ornamentation were violated, and every fantastic extravagance adopted without scruple.

§ **The Renaissance an Architecture of Princes.** The love of splendor, the pomp of wealth, furnished the motive power for the Renaissance. Its blaze of ornament, like the mantling of a king, astonished and awed the mind of the common people. The house of God and the palace of a king received glory through the same kind of decorative vesture. The ministry and the memories of the priest could offer no suggestion to Renaissance architecture. The more the world and its wealth obtruded in the sanctuary, the better the church pleased the king and his people and his priests; for now the law was, Like the king are both the priest and the people. The Renaissance satiated the nations of modern times. The Church and the State tired of its superficial attractions. This satiety was the prophecy of the dawn of a new day, when churches should be rich in religious associations and in an architecture consonant with the great past of Christianity; for to understand the Gothic and Romanesque and Basilican churches one must know his Bible and the history of the Christian Church; but to understand the Renaissance church one must know the vanity of kings and princes and the godlessness of a world-loving clergy.

Table of Renaissance Churches.

I. IN ITALY.

PLACE.	EDIFICE.	PART.	CENTURY.
Bologna.	Frati di S. Spirito.	All.	XV.
Florence.	Cathedral.	Dome.	XV.
Florence.	Sta. Croce.	Pazzi Chapel.	XV.
Florence.	S. Lorenzo.	All.	XV.
Florence.	S. Spirito.	All.	XV.
Florence.	S. M. Novella.	Façade.	XV.
Mantua.	S. Andrea.	All.	XV.
Perugia.	S. Bernardino.	Façade.	XV.
Prato.	Madonne della Carceri.	All.	XV.
Rimini.	S. Francesco.	Rebuilt.	XV.
Rome.	S. Agostino.	All.	XV.
Rome.	S. M. del Popolo.	All.	XV.
Venice.	S. M. dei Miracoli.	Marble-work.	XV.
Venice.	S. Zaccaria.	Façade.	XV.
Genoa.	S. M. di Carignano.	All.	XVI.
Montefiascone.	Madonne della Grazie.	All.	XVI.
Pistoja.	S. M. dell' Umilta.	All.	XVI.
Todi.	Madonne della Consolazione.	All.	XVI.
Rome.	St. Peter's.	Most.	XVI.
Rome.	Church of Gesu.	Most.	XVI.
Venice.	S. Salvatore.	All.	XVI.
Venice.	S. Georgio Maggiore.	Façade.	XVI.
Venice.	S. M. della Salute.	All.	XVII.
Rome.	S. John Lateran.	East Front.	XVIII.
Rome.	S. M. Maggiore.	Façade.	XVIII.

II. IN FRANCE.

PLACE.	EDIFICE.	PART.	CENTURY.
Caen.	St. Pierre.	Choir.	XVI.
Dijon.	St. Michel.	Façade.	XVI.
Paris.	St. Etienne du Mont.	All.	XVI.
Paris.	St. Eustache.	All.	XVI.
Paris.	Chapel of Sorbonne.	All.	XVII.
Paris.	Invalides.	All.	XVII.
Paris.	St. Paul and St. Louis.	All.	XVII.
Paris.	Val de Grace.	All.	XVII.
Paris.	Madeleine.	All.	XVIII.
Paris.	Pantheon.	All.	XVIII.
Paris.	St. Sulpice.	All.	XVIII.

III. IN ENGLAND.

PLACE.	EDIFICE.	PART.	CENTURY.
Bloomsbury.	St. George's.	All.	XVIII.
London.	St. Mary's.	All.	XVIII.
London.	St. Martin's.	All.	XVIII.
London.	St. Paul's.	All.	XVIII.
London.	St. Stephen's.	All.	XVIII.

IV. IN GERMANY.

PLACE.	EDIFICE.	PART.	CENTURY.
Munich.	St. Michael.	All.	XVI.
Wurtzburg.	University Church.	All.	XVI.
Dresden.	Marien-kirche.	All.	XVII.
Wolfenbuttel.	Marien-kirche.	All.	XVII.

V. IN SPAIN.

PLACE.	EDIFICE.	PART.	CENTURY.
Granada.	Cathedral.	All.	XVI.
Jaen.	Cathedral.	All.	XVI.
Salamanca.	Church San Domingo.	All.	XVI.
Saragossa.	Cathedral del Pilar.	All.	XVII.
Santiago.	Cathedral.	All.	XVIII.

N. B.—1. Only a few important churches of the Renaissance are given, to illustrate the different styles.

2. The part indicated is the most conspicuous as an example. The word "all" means the edifice generally.

Chapter X.

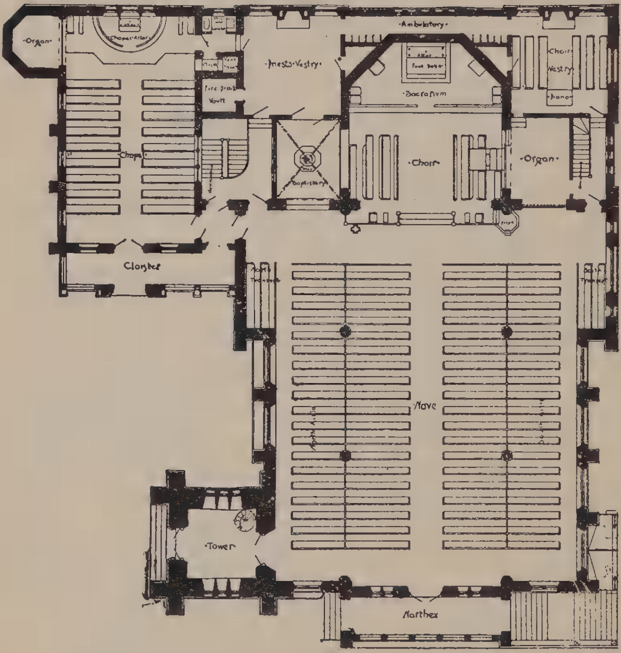
ARCHITECTURE OF THE MODERN CHURCH.

§ **Modern Religious Life.** The Christian Church of this, our century, is one in the essentials of its faith, diverse in the elements of its polity. The Greek Catholic Church is the dominant Christian Church body in the Orient. The Roman Catholic Church is a Christian body claiming universal dominion, but is, in reality, only a denomination among others which combine to make the Christianity of the Western nations. The Protestant Catholic Church is the third great body of modern Christianity. The Greek and the Roman Catholic Churches have each a polity sanctioned by an antiquity of more than a thousand years. The Protestant Catholic Church is a composite body, having within it many denominations and many forms of Church polity. Modern Christian life, therefore, is a unit only in the essentials of the Christian creed.

§ **The Altar and the Pulpit.** The priest and the prophet have in every age been the leaders of men in their movement toward the Most High God. The prophet, rather than the priest, led the Christian believers during the planting of the Christian faith in the world and during the periods of the early fierce persecutions. The priest, rather than the prophet, led to the establishment of the Christian faith in the world as a magnificent religion, which surrounded itself with a splendor that far outshone the royal state of emperors and kings. The priest and the prophet together are the world-messengers who have established Christian worship and heralded Christian doctrine. The priest, rather than the prophet, is the dominating idea in the Greek Catholic, the Roman Catholic, and the Protestant Episcopal Churches. The prophet, rather than the priest, is the controlling idea in most of the Protestant Catholic Churches. The altar is most emphasized where the priest is supreme; the pulpit is the seat of power where the prophet's voice is the leader in the house of God.

§ **The Altar as Central.** The only considerable and important development of ecclesiastical architecture in modern times is to be found among the English-speaking peoples. Yet not England, but the United States, has been the most prolific in church buildings. England had ample church accommodations when the United States had but very few. The vast growth of our population, and the remarkable increase in our national development and in our wealth, were also accompanied with equally remarkable religious awakenings, so that church edifices appeared in great numbers; not cathedral churches, however, but churches suited to the needs of small congregations. Hence the illustrations of modern ecclesiastical styles will be taken from American churches. The altar is made central in the Roman Catholic and Protestant Episcopal Churches. A study of the plan in Fig. 259 will reveal certain marked differences from those church-plans which we have already considered. The building is arranged for the seating of worshipers. No provision is made for numerous aisle and choir chapels. The altar is not intended to awe one by the splendid vista opening behind it in the choir. The parochial church of the Middle Ages is the plan essentially for the modern altar-church. The appropriate designations for the parts of the altar-church are the nave, including all the portion before the chancel; the altar, including all back of the chancel. Roman Catholic churches have minor altars at the end of the side-aisles.

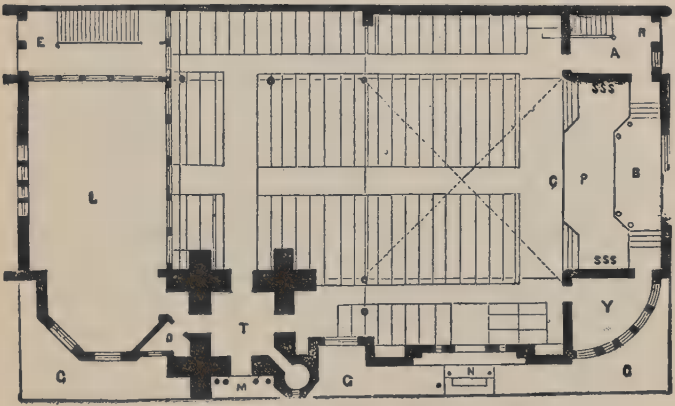
FIG. 259.



PLAN ST. LUKE'S CHURCH, JAMESTOWN, N. Y.

§ **Pulpit as Central.** The Protestant Churches, excepting the Protestant Episcopal Church, make the pulpit central in worship. Not the celebrating of a mass, nor the reading of a beautiful liturgy, but the hearing of a sermon, is the principal feature of Protestant worship. The plan in Fig. 260 presents the main requirements for the congregation and the preacher. It will be seen that one end of the room has in it the pulpit; the central portion is filled with the body of pews. There are two accessories to Protestant church-life for which provision has to be made. The people meet for prayer; the children gather on Sunday for instruction. Hence the Protestant church-plan has a prayer-meeting room and a Sunday-school room; sometimes one room (*l*) answers for both purposes. The place of the pulpit in the edifice, or the position of the prayer-meeting room, determines the interior arrangement of the church, and often most beautiful effects are produced by new and attractive departures from the earlier church-plans.

FIG. 260.

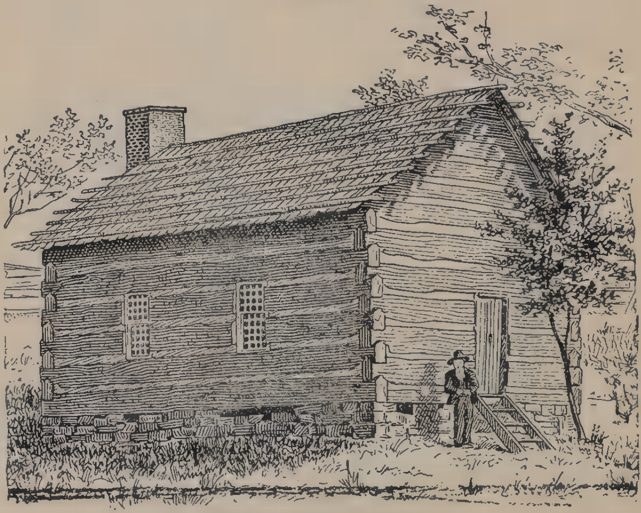


WEST SPRUCE BAPTIST CHURCH, PA.

A. DEVELOPMENT OF THE PROTESTANT CHURCH EDIFICE.

§ **The Meeting-house.** There was no architecture, which means princely building, in those simple shelters reared to protect the few who came together for Christian worship in the first American settlements. McKendree Chapel (Fig. 261) is the first Methodist Episcopal Church built west of the Mississippi River. It is a gabled-roofed room, not unlike the houses in which the earliest settlers in the Western wilds lived. Yet this structure met all the demands of Protestant worship. The pulpit was in this room, the congregation gathered here in this simple house of God.

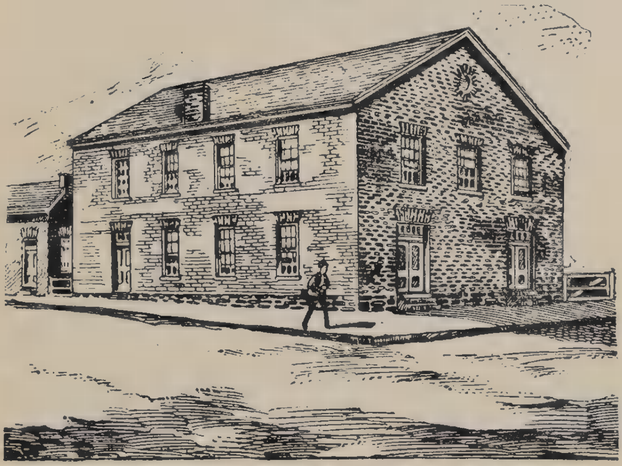
FIG. 261.



McKENDREE CHAPEL.

§ **The Modern Nave or Ark Type.** The splendid architecture which grew up in connection with those churches wherein the altar-celebrations dominate over pulpit expositions, was a most fitting accompaniment to the rich decorations of the altar and the glowing vesture of the priestly celebrant. There was, therefore, every motive from the form of service connected with the altar-liturgy to awake longings for a noble architecture. The Protestant pulpit had its first splendor in its noble outcry against the sins of the people, in its noble warnings to mankind, in its noble portrayals of the mercy and love of God. The desire for a beautiful architecture in the Protestant churches grew out of those feelings which prompt men to adorn their homes, improving them in order to show the delight men and women have in these sacred places. The house of God was the home of the people; the minister was prophet and shepherd. There were in the earliest development of the Protestant pulpit-church but few requirements. The struggle was for existence against the ritual-loving Churches. The first attempts at architectural effect began with simple architectural adornment. The front of the church received architectural features. The Old Brick Methodist Church, Cincinnati (Fig. 262), built in

FIG. 262.

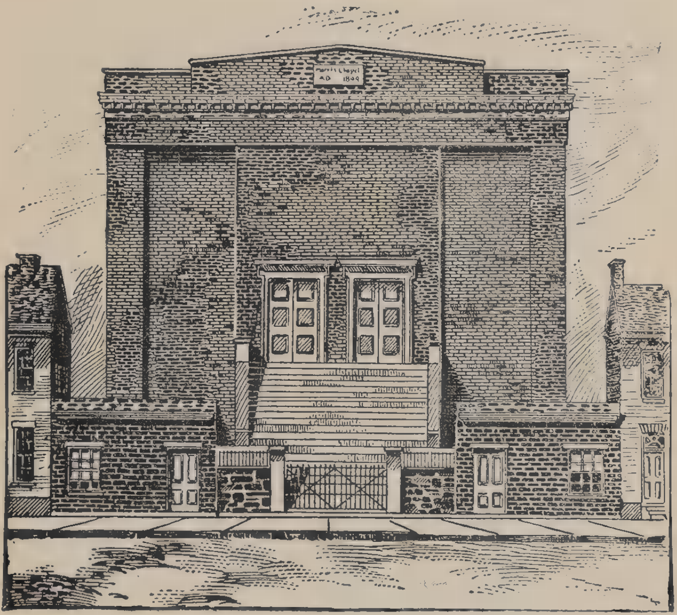


OLD BRICK METHODIST EPISCOPAL CHURCH.

1819, will show the simplest mode of decorative improvement. The church is, externally, an oblong building with gable-roof. Above the openings, whether doorways or windows, were inverted courses of brick, intended to be ornamental. A circular window is placed in the front wall beneath the gable. One door was for the entrance of women, and the other for the entrance of men. The internal arrangements were simple. A gallery extended around three sides between the two tiers of windows. The north end of the room was occupied by the pulpit, behind which was a semicircular alcove, this being simply ornamental and suggested by the historic apse. By referring to Fig. 39 it will be seen that this church is in type like the ark-church, a model of which is carried by the bishop in the imperial chariot. Modern non-priestly Protestantism resembled, not in its earliest church-buildings alone, but also in its form of service, Apostolic Christianity.

§ **Nave-type with Renaissance Façade.** The Dissenting Churches, meaning by this expression all Churches which make the pulpit central in their church-edifices, were compelled to increase the facilities in their buildings, in order to accommodate the Sunday-school and the prayer-meeting. The first change to meet these new demands was secured by making two stories in the church-building. Growth in wealth also led to the introduction of new architectural features. Morris Chapel, of Cincinnati (Fig. 263), built in 1844, will give an excellent illustration of these changes. The front is Renaissance in design, as the central and corner piers, supporting the architrave, make clear. The doorways are Renaissance. The doors on each side of the high steps, leading to the church proper, were the entrances to the Sunday-school and prayer-meeting room. The two doors at the top of the staircase opened into a vestibule, whence entrance was gained to the church through three double doors. A gallery for the choir was over the vestibule. The pulpit was opposite the choir. The designations for the appointments in the Dissenting churches indicate the new features in worship. The pulpit is central, and before it is the altar-table. The altar includes the pulpit and the communion-table. At first this portion was separated by a railing, and was raised somewhat above the floor of the church. The choir in the Protestant church is the place for singers; the body of the church is for the congregation.

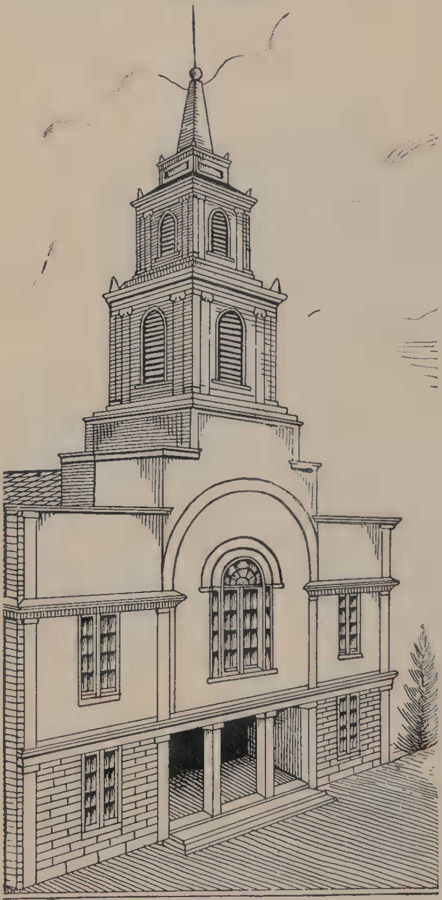
FIG. 263.



MORRIS CHAPEL METHODIST EPISCOPAL CHURCH.

§ **Nave-type with Renaissance Tower.** Old McKendree Church, Nashville (Fig. 264), is a good example, showing the tower in order to give a greater architectural character to the front of Dissenting churches. The upper stages of the tower were square in plan, and decreased in the ascent upward. A pyramidal spire made the termination. Windows had both the lintel and round-arched head. There were downstairs and upstairs to the building. Entrance was through a kind of colonnade into the vestibule, whence stairways led to the church above. The place of assembly for the worshiping congregation is the church. A greater love for architectural features is apparent in this front, which has a strong tower as its chief element, containing the belfry.

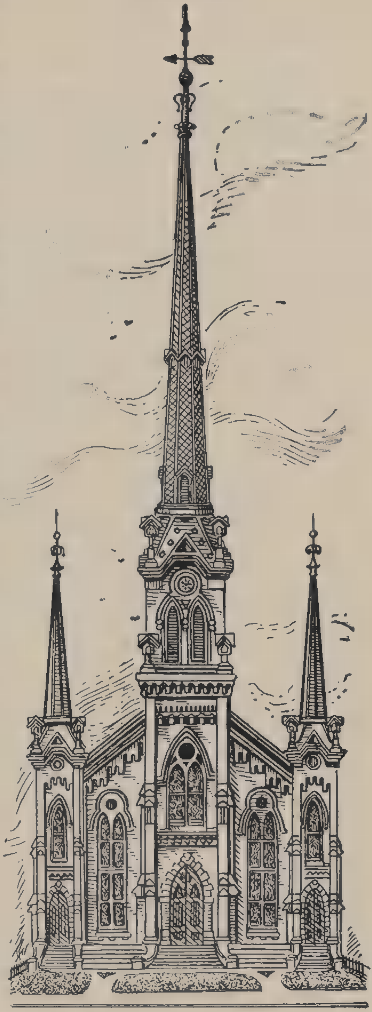
FIG. 264.



OLD McKENDREE METHODIST EPISCOPAL CHURCH, SOUTH.

§ Nave-type with Renaissance Spire. The trend in the type of the nave-church was still toward architectural embellishment for the front of the church-building. The central portion of the new McKendree Church (Fig. 265) is a strong tower, and the corners are finished with turrets, corresponding to the main tower in style. Each tower-structure is surmounted by a spire. The exaggerated height of the central spire is at once apparent. The front contains pointed double windows under peculiar hoods. The introduction of the circle in the heads of these double windows shows the irrational license of the Renaissance. However, the whole impression of this façade evidences a more than common love for architectural effects when compared with the structures that may be

FIG. 265.

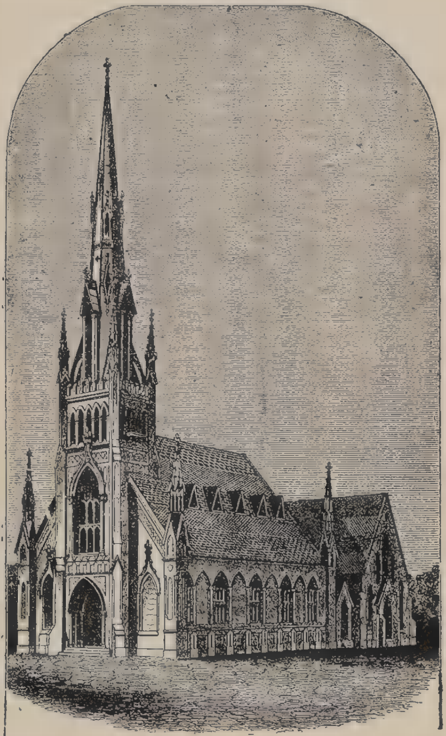


McKENDREE METHODIST EPISCOPAL CHURCH, SOUTH.

regarded as contemporary with it. The doorway through each tower leads into the vestibule, whence there are entrances into the church. The prayer-meeting and Sunday-school room is below, and is entered by means of a door on the side of the building. The approach to this church is through a beautiful churchyard, having grassy plots, long green in a Southern clime.

§ **Nave-type in Gothic Style, with Chapel.** The Memorial Presbyterian Church, at Gettysburg (Fig. 266), presents an edifice in which not alone the front, but the whole building, was ordered under architectural principles. The details are Gothic. Yet similar structures are built with Romanesque features. This memorial church has a tower similar to those built in the parish Tudor churches (*vide* Fig. 183). The Tudor tower has several more stories in it than this modern Gothic tower, for height is gained, not by a departure from a tower-structure to that of a spire, but by the multiplication of stories in the Tudor tower. The modern Gothic tower has a large modern Gothic portal, pointed and deeply recessed. Above it there is a beautiful and large pointed window, through which light enters over the gallery into the church. A series of gabled openings are set in the roof, thus increasing the illumination of the interior. The exterior of the side wall is paneled with a pointed arcade, alternate arches of which are window-apertures. The pinnacles upon the tower and at the church corners are to be noticed as Gothic features, and also the steep, high Gothic roof. In this way the impressiveness of the edifice is increased. The whole building is essentially a new type, and is churchly in its architectural features. The addition of the chapel in the rear for Sunday-school and prayer-meeting services was a great step in advance over the practice of having a basementstory for these purposes. The architecture of this chapel accords with that of the church. There is, of course, no such impressiveness in this modest group of buildings as we find in the grandeur of those mighty cathedrals which were built under the priestly form of worship. But to a thoughtful mind this Gothic church offers weighty suggestions. The church proper is the throne of the prophet, who expounds the Word of God in a known tongue; it is also the court of God's people, where they sing praises unto his holy name. The chapel is the place for instruction; here the power of the teacher has full sway. The Dissenting Churches give prominence to the prophet and the teacher in their worship.

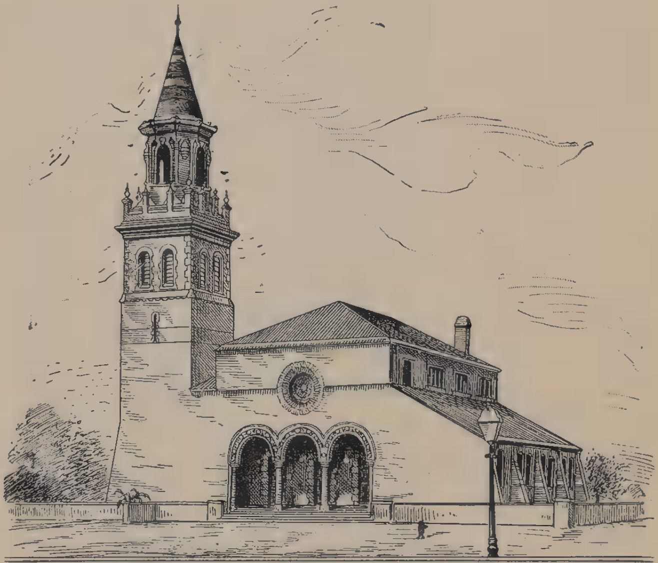
FIG. 266.



MEMORIAL PRESBYTERIAN CHURCH.

§ **Basilican Type in Romanesque Style.** The central structure, with clerestory and the adjacent shed-roofs, compose the Basilican style, and the Methodist Episcopal Church at St. Augustine (Fig. 267) shows the modern adaptation of this ancient type. The entrance is a triple arcade with bold, round arches, above which is a circular window. The tower is well-proportioned and a graceful Romanesque structure, giving to the whole edifice strength and dignity of aspect. It is skillfully united to the church, so that it seems no addition, but an integral part of the building. The cone, instead of the pyramid as the spire-termination, is a modern innovation. The eclectic character of modern architecture is apparent from this church. Not structure, but decoration, gives the name to the style. The type is Basilican; the decorative features are Romanesque.

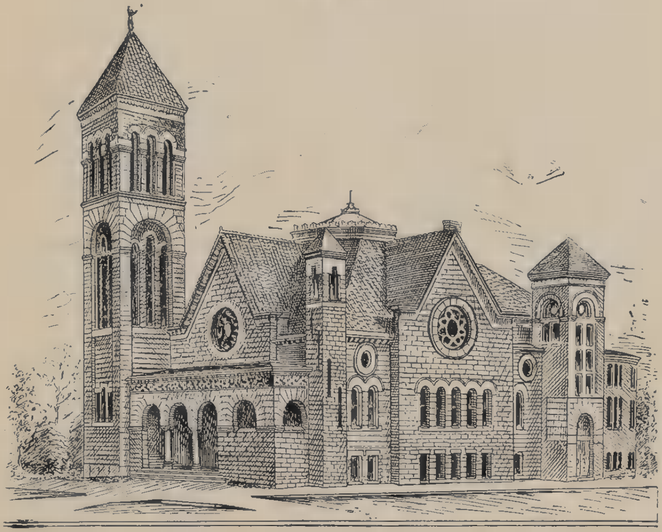
FIG. 267.



METHODIST EPISCOPAL CHURCH, ST. AUGUSTINE, FLA.

§ **Romanesque in both Type and Structure.** The cruciform character, as seen in the proposed Methodist Episcopal Church (Fig. 268) at Norwalk, O., immediately classifies it with the Romanesque as to structure. The front has as separate elements a noble tower, a striking porch, and, above it, a beautiful circular window, all carried out in the spirit of the Romanesque. But, nevertheless, there is an independence in the handling of the details, so great that the building may be rightly characterized as the Modern Romanesque. The tall, triple window in the tower, inclosed in a magnificent round arch, and its upper story being a triple arcade, combine to produce a tower essentially new in design as well as modern. The low dome above the crossing of the roof makes not only a beautiful finish,

FIG. 268.



PROPOSED METHODIST EPISCOPAL CHURCH, NORWALK, O.

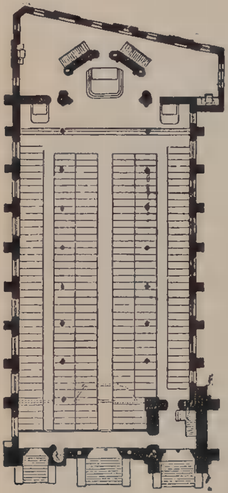
but is richly symbolical; for here is the combination of the cross and the crown. The transept is harmonious with the front because of the arcade of windows and the circular window. The edifice well typifies American Church-life, which is founded on the great Christian faiths of the past, built up strongly, independently, and beautifully; rich, also, in its indwelling spirit.

B. GROUND-PLANS OF THE MODERN CHURCH.

(1) ALTAR AS CENTRAL.

§ **Plan with Nave and Chancel.** The Roman parochial church makes provision in modern times, as anciently, mainly for the congregation and the ministering priest. And the same requirements are demanded by the Episcopal parish church. The plan of St. Martin's Roman Catholic Church, New Haven (Fig. 269), will, therefore, illustrate the general arrangement in these two branches of the Christian Church where liturgical service is fundamental. The nave contains pews for the worshiping congregation. They are entered by the central and the side-aisles. The chancel contains the altar, and is the place where the priest officiates. The choir is usually a loft, opposite to the chancel, where the organ and the singers are placed. It is thus seen that modern usages have done largely away with the designations of the mediæval church. Nave, choir, and transepts are terms seldom applicable to the modern church.

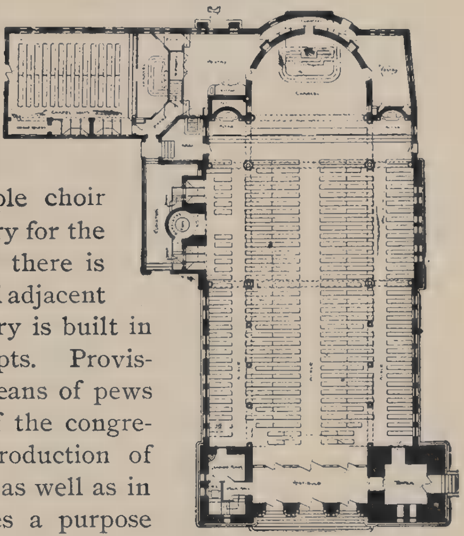
FIG. 269.



ST. MARTIN'S ROMAN CATHOLIC CHURCH.

§ **Plan with Transepts.** St. John's Roman Catholic Church, Jersey City (Fig. 270), is a splendid adaptation of the mediæval structure to modern times. The four great piers in the nave indicate the transepts. There is an ample choir with an ambulatory for the clergy around it; there is also a small chapel adjacent to it. A baptistery is built in one of the transepts. Provision is made by means of pews for the seating of the congregation. The introduction of seats in the aisles as well as in the nave indicates a purpose on the part of the clergy to retain worshipers in the church until the service is concluded. This is modern, and contrasts strongly with the ancient way of having the congregation stand. Not only is this standing ancient, but is to-day, on the Continent, largely the practice for the greater part of the congregation. They stand in the nave, and leave conveniently by stepping into the side-aisles of European mediæval churches, and so pass out of the edifice.

FIG. 270.



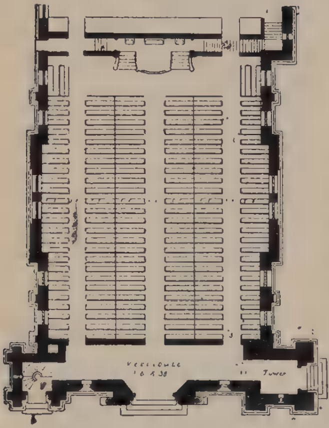
ST. JOHN'S ROMAN CATHOLIC CHURCH.

(2) PULPIT AS CENTRAL.

§ **Plan of the Church Proper.** Protestant usage limits the idea of the church to the large room in which the congregation assembles in order to listen to the

Word of God read and expounded from the pulpit. There are, therefore, only two requirements for the church: the place for the minister, and the place for the congregation. The body of the church (Fig. 271) is filled with pews. The end of the room, opposite the entrance, is where the pulpit is placed. It is at once evident that any form may be given to the edifice which incloses the plan providing for the requirements of Protestant worship. The seats of the church may be arranged in various ways, either in straight rows, leaving aisles, or in semicircles, through which aisles are led, as if radiating from the pulpit. The tendency is to favor this semicircular arrangement. Another circular arrangement is seen in Fig. 272, *a*. When first choir-singing became a prominent feature in worship, the place for the choir was over the vestibule in the gallery. Later, however, the choir was moved to the front of the church, either to one side of the pulpit or behind the pulpit. The simplicity of Protestant worship makes no demands upon a building such as a liturgical service does. Indeed, the church for Protestant worship is not a temple of God, but a house of God, and so, comparatively, a simple edifice.

FIG. 271.

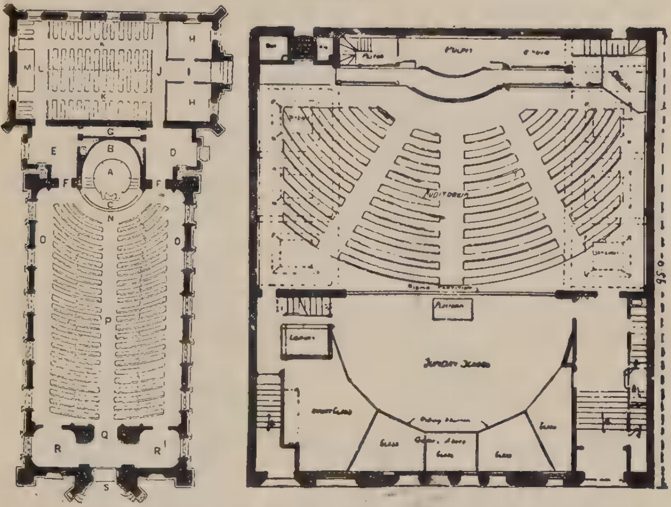


SIMPLEST PROTESTANT CHURCH-PLAN.

§ **Plans of Churches with Chapels.** Protestant architecture began to take upon itself more imposing proportions, when the Sunday-school and social services—

such as prayer-meetings and benevolent meetings—became indispensable for the increasing demands of the growth of the Protestant religious faiths. The downstairs and the upstairs arrangement for satisfying these new demands enabled architects to give greater magnitude to the church-building; but only when these requirements were met by the addition of a chapel, did such conditions arise as to induce the architect to make plans for an edifice which should bear no unworthy comparison with the architectural efforts of former times. The earliest solution of the problem arising from these new requirements of Protestant worship, as made manifest through its social meetings, was by the simple addition of a chapel (Fig. 272, *a*) behind the pulpit. Sometimes this plan with chapel was inclosed under two distinct

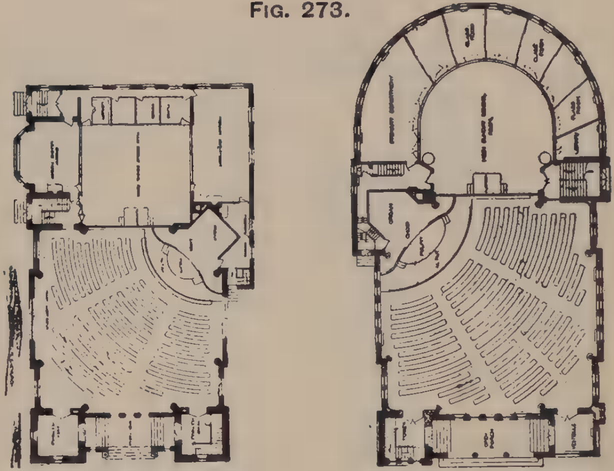
FIG. 272.



a. PRESBYTERIAN CHURCH, GETTYSBURG, PA.   *b.* ENGLISH LUTHERAN CHURCH, CINCINNATI, O.

roofs, at other times under one roof of imposing size. It was a great advance when architects arranged their plans so as to make the chapel open into the church. This end was reached by placing the chapel behind the church (*b*). The entrance in the plan given is from the front and to one side of the chapel. It is readily seen that the entrance to the church might be at either side, in which case the side would become the front. One of the greatest charms of modern Protestant Church architecture, within as well as without, arises from the original and beautiful variations in the arrangement of church and chapel. The two plans in Fig. 273 show the Sunday-school room or chapel, opening into the audience-room from one side. The unique position of the pulpit and the happy arrangement of pews so as to make the two rooms practically one for the accommodation of an

FIG. 273.



a. PLAN METHODIST EPISCOPAL CHURCH, WASHINGTON C. H., O.

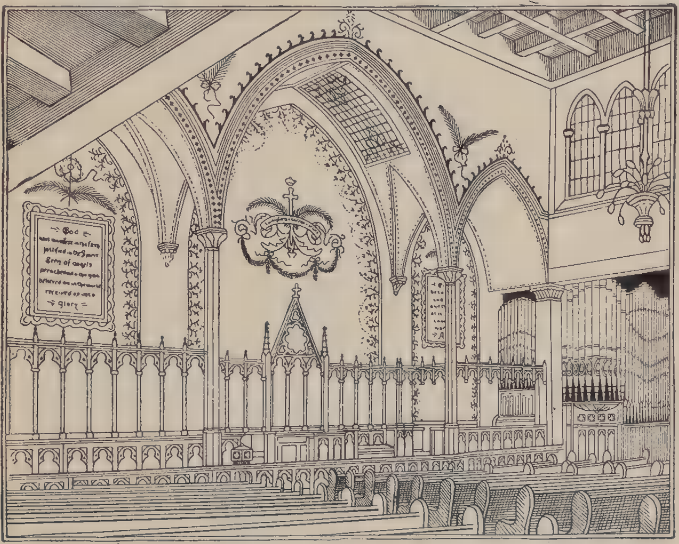
b. PLAN METHODIST EPISCOPAL CHURCH, AT NORWALK, O.

audience, become at once apparent, and show most excellent architectural judgment. The best splendor of the architecture connected with liturgical worship is traceable to the provision for the altar and its service. The best splendor of the Protestant worship was obtained when large provision was made for the Sunday-school and the social services. The one is the splendor of a religious palace, the other the splendor of a religious home.

C. TYPES OF INTERIORS IN THE MODERN CHURCH.

§ **The Flat Ceiling.** Beams, set into the wall or upon the wall of the church, furnish the support for the ceiling. This mode was the earliest developed method of roofing over a space. The First English Lutheran Church (Fig. 274), Cincinnati, gives a very attractive ex-

FIG. 274.



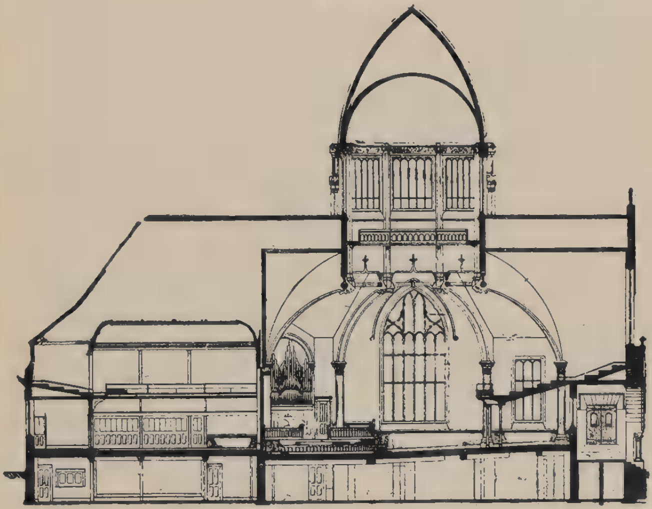
FIRST ENGLISH LUTHERAN CHURCH.

ample of decorative expedients for beautifying a modern church. The side-aisles are under a gallery, and the middle aisles have a clerestory wall, in which ample window-apertures are made. Heavy beams divide the space of the ceiling into coffer-like panels. A Gothic arcade cuts off the portion of the room assigned to the pulpit and communion-table. Large spaces are furnished by the architect in this style to induce the promoters of the edifice to ornament the room with beauty.

§ **A Modern Church Decorator.** The ordinary mode of handling the wall-spaces in a flat-ceilinged church is detected from this illustration at a glance. The only brains needed in the decorator is to cut out a stencil plate, imitating some stereotyped patterns, and place them and a brush in the hand of a mixer of paint. The form is then struck by him upon the wall. Some pretty effects are often secured in this way, but all this kind of decoration can never inspire the brush of an artist. The Roman Catholic Church of St. Patrick, in Nashville, Tenn., gives an example of how this mode of ceiling may be made beautiful as art and symbolical as Christian art. The ceiling is paneled by prominent mouldings into forms usually square. These spaces are then painted with artistic compositions which portray great events within the long history of this great branch of the Christian Church, or else the compositions illustrate scenes from the Christian Scriptures. The side-walls of the room are filled with large memorial stained-glass windows, and the light coming through them makes not only a wall filled with beautiful suggestions, but a sanctuary in which the light has lost its glare, and is mellowed into grateful twilight. Most of the Scriptures and the great personages of the Roman Catholic faith could be restored from the churches of this Christian body if the Scriptures and the history of the Church were destroyed. If such calamity were to occur, the Protestant Churches, from the decorations of their buildings, could produce evidence of pretty designs in lace or geometrical tracery, but would furnish scarcely any part of the Christian Scriptures which are the foundation of all Protestant belief. All this is unwise.

§ **The Concave Ceiling.** A longitudinal section (Fig. 275) of a modern church will enable us to see the construction of a variety in which the dome is combined. The church and the adjacent chapel under one roof is at once distinguished. The place of the pulpit and communion-altar is seen at the left of the church; the gallery is seen outlined at the right. Central is the

Fig. 275.

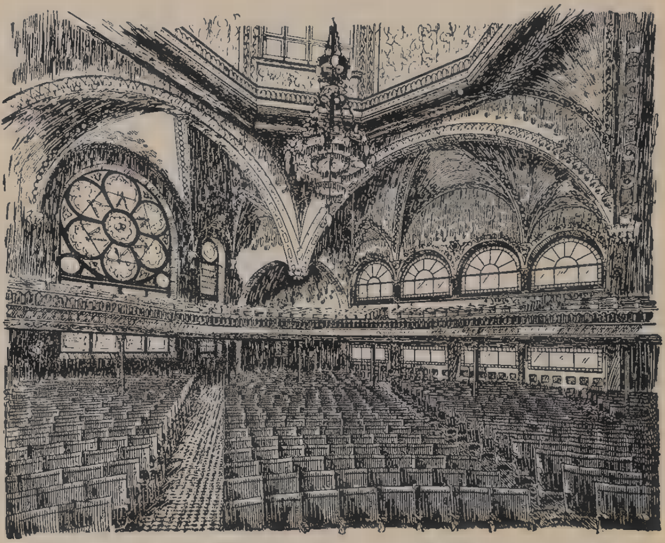


WASHINGTON COURT HOUSE METHODIST EPISCOPAL CHURCH.

place for the congregation, and above it is the charm of a beautiful dome; at the sides is the splendor of magnificent windows. The architectural instinct and genius are present everywhere in this construction, and modern architects may be rightly proud of their achievements in such harmonious and beautiful combinations.

§ **The Decoration of the Concave Ceiling.** The audience-room of the Epworth Methodist Episcopal Church (Fig. 276), Cleveland, O., is an interesting study in the possibilities of modern church architecture. The employment of great arches to sustain the dome is a Byzantine invention; the ribbed construction for the roofing of spaces, making groined compartments, is a

FIG. 276.



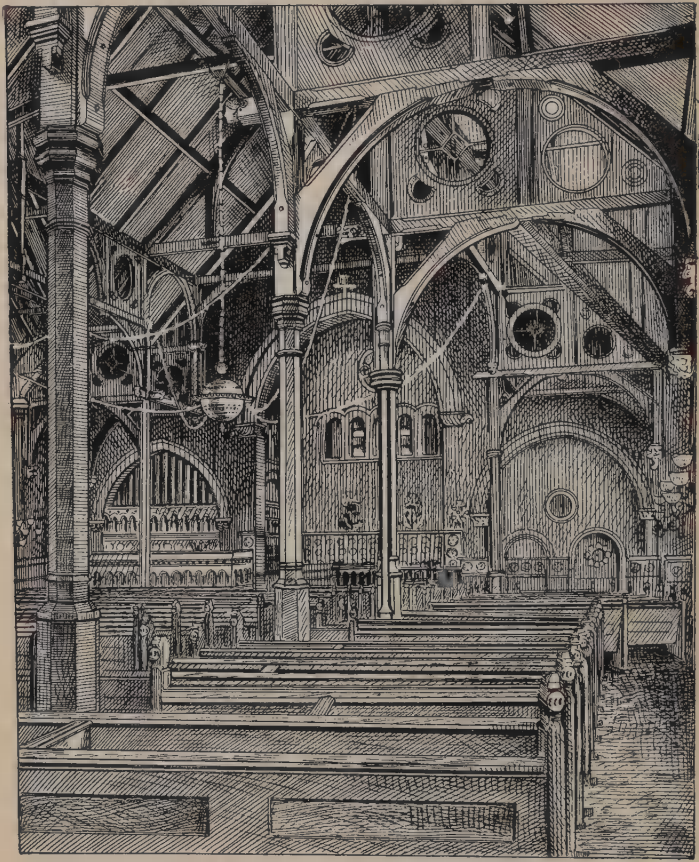
INTERIOR OF EPWORTH METHODIST EPISCOPAL CHURCH.

Gothic expedient. This combination of both methods into a harmonious structure is modern. There is singular majestic splendor in this room for the congregation. The dome delights with its grace and its beautiful proportions. The windows, within the great arches, delight with their simplicity and varied forms. Had this room been handed over to any one of the great Italian artists of the Middle Ages, it would have been beautified with artistic productions which might cope not unsuccessfully for precedence over the charms of the great Italian basilicas. All spaces are large, of different form, attracting the genius of an artist. Indeed, we venture not too much in saying our modern artists are capable of adorning these surfaces with masterpieces full of churchly suggestion. But the wealth of the modern individual congregations can not meet the fabulous price for artistic work, and artists to-day look for lucre rather than immortality of fame. They have their reward sometimes.

§ **The Pointed Ceiling.** The form of the gable-roof is left unconcealed in the pointed ceiling. Oblong panels are a simple and common mode of decoration. But the audience-room is given a most remarkable attractiveness when there is introduced into it columns and arches, thus dividing the room into divisions corresponding to the nave and side-aisles. The interior of the Calvary Presbyterian Church, Cleveland (Fig. 277), shows this style of interiors. If we remove the high gable-roof we will have a frame-work of wood, constructed on the same principles as the Gothic building. Columns support arches, making nave and side-aisles. Thus it may be said that one mode of modern decoration is to place the Gothic frame-work under the roof of a building, and insert many ornamental forms upon the beams and arches.

There are many churches of this interior construction, and manifold are the variations produced in them by the forms of ornamental wood-work introduced here and there within the room. A very common mode of treat-

FIG. 277.



CALVARY PRESBYTERIAN CHURCH.

ing the paneling of the pointed ceiling is to give the panels a background of sky-blue, and scatter golden stars on this wooden firmament. Protestant interiors are generally made ornamental and attractive by a stereotyped decoration. The great need is for an ornamental style which shall retain reminders of the past history of the Christian faith and memorial scenes of the magnificent achievements of Protestant leaders in the development of the religious life of the Western nations as well as of the Orient.

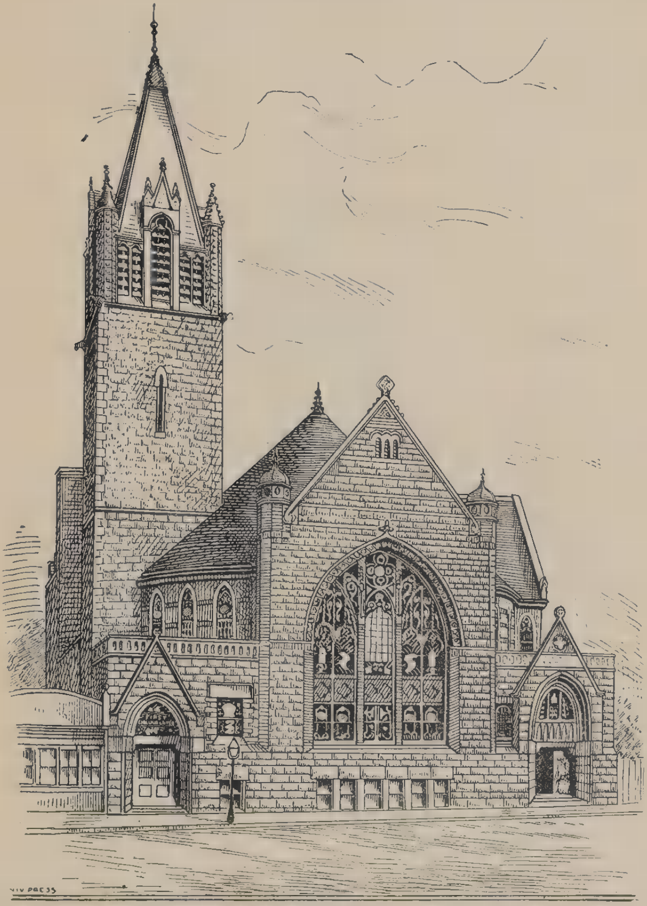
D. ARCHITECTURAL STYLES OF THE MODERN CHURCH.

§ **Designation of Modern Styles.** The broadest generalization of architectural styles is expressed under the three terms, Renaissance, Romanesque, and Gothic. The Renaissance is practically an eclectic style. Gothic, Romanesque, Byzantine, and Classical features are combined at pleasure in the modern Renaissance. The modern Romanesque and Gothic styles are true to the principles of mediæval Romanesque and Gothic so far as to confine the round arch to the Romanesque and the pointed arch to the Gothic. Yet the building may be either Basilican or cruciform in general outline. It is quite the custom to decry our modern architects, and to pass by their works with but slight attention. The fact, however, is that modern Church architecture is in no sense second to mediæval where the conditions are essentially the same. A right comparison is instituted when the mediæval parish or parochial churches are compared with the beautiful structures which are modern and adorn English and American cities. The magnificent ability of modern architects to plan great cathedral edifices became apparent when the competitive designs for the St. John's Cathedral, New York, were made. These designs show ecclesiastical edifices, which, if built, would easily rival the proudest monuments of Italy, France, Germany, Spain, or England. We need not genius in architects, but liberality in the people, in order to make our American cities the possessors of an ecclesiastical architecture which would astonish the dwellers among the cathedrals of mediæval Europe. A great Protestant cathedral in each of our large cities, consecrated to general services and common religious needs, having library, historical and art museums, would create a demand for an ecclesiastical edifice of proportions equal to European cathedrals, and would also give to Protestant architecture most beautiful and commanding structures.

(1) MODERN RENAISSANCE STYLE.

§ **English Lutheran Church, Cincinnati.** The eclectic character of this truly attractive church (Fig. 278) becomes apparent upon the inspection of its dominant features. The gable end, with its great Gothic window, would not be inappropriate in the Gothic churches of the flamboyant style. The strong, solid tower is, in the main, Romanesque. The central dome suggests European Renaissance. The combination is daring, and is effected with a most pleasing grace, showing rare constructive ability in the architect. By referring to the ground-plan of this church (*vide* Fig. 272, *b*) it will be seen that utility was beautifully secured by the combination of domical and pointed roof in this edifice. The dome is the charming covering for the Sunday-school-room. The cross gable-roof is the roofing for the church. The tower is part of the church. This church is like those small flowers by the wayside. Their modest show hides their beauty, but when they are plucked and beheld, their beauty of form and rare coloring make them rival easily the more obtrusive flower beauties which hang in our gardens. Indeed, it may be said of modern churches of the best type, they

FIG. 278.

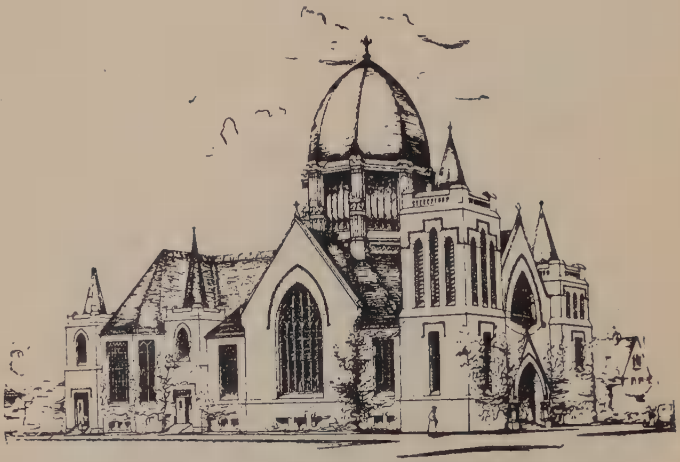


FIRST ENGLISH LUTHERAN CHURCH.

need only larger proportions to make them splendid examples of the architectural art.

§ **Methodist Episcopal Church, Washington Court House, O.** Fancy always finds delight in those English parochial churches of the Tudor times, which are ivy-clad and are mighty through their strong tower. This church (Fig. 279) has all the allurement in it that these English churches possess. It is Renaissance in style because it is composite. The towers at the corners of the entrance-façade, and in the angles of the transepts, show that love for these strong features which led the architects along the Rhine, in the palmy days of the Romanesque style, to add them in numbers to their churches. The dome over the central crossing is, for beauty and grace, equal to those which the European Renaissance regarded as its chiefest joy. The gable end, with the large pointed window, is Gothic. The ground-plan of this church is given in Fig. 273, *a*. These two examples show that the modern Renaissance is an independent and beautiful style.

FIG. 279.

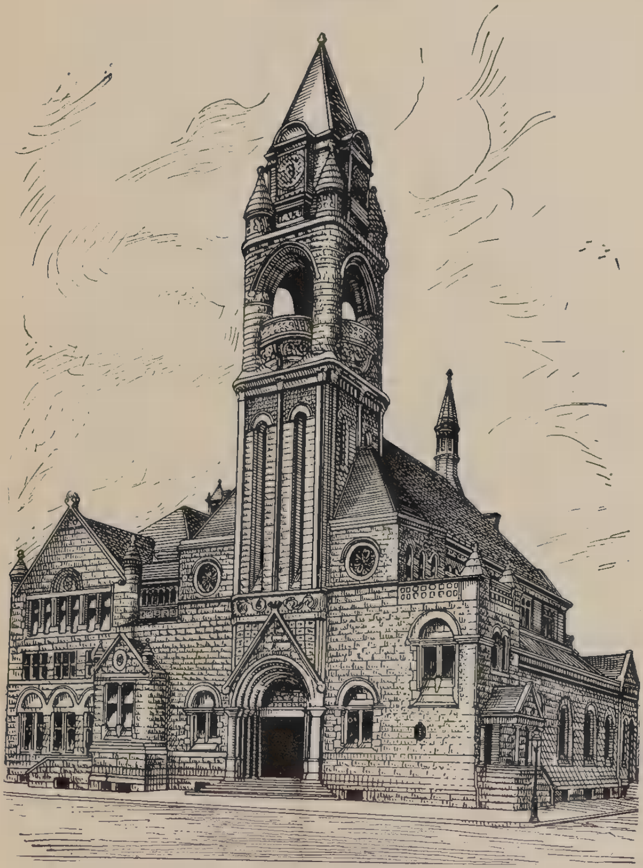


WASHINGTON C. H. METHODIST EPISCOPAL CHURCH.

(2) MODERN ROMANESQUE STYLE.

§ **Madison Avenue Methodist Episcopal Church, New York City.** The chapel (Fig. 280) is to the left, and is united harmoniously to the church. As to its structural type, the building is a basilica with central

FIG. 280.

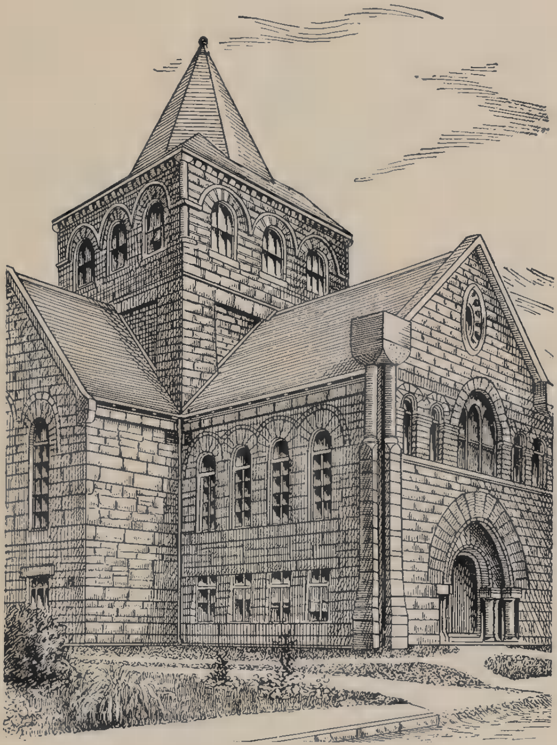


MADISON AVENUE METHODIST EPISCOPAL CHURCH.

tower. The Basilican form is apparent from the central clerestory structure and the adjacent shed-roofs. The handling of the separate features of this edifice shows that modern ecclesiastical architecture is least of all imitative. The entrance-façade is a porch structure with central tower. The details are Romanesque, saving the pointed gable over the portal. The long, narrow windows above the entrance, the large arches of the belfry, the gable-roof, are beautiful, and practically new as architectural designs. The example is a beautiful modern Romanesque church.

§ **Baptist Church, Newton, Mass.** Modern ecclesiastical architecture has this excellence, that it runs not into the extravagances of the Renaissance ecclesiastical architecture of the seventeenth century. Our modern churches are a distinct type by themselves in the main, and are in beautiful accord with the simple purposes of the building. Sometimes a love for what looks solid and substantial, rather than for what has grace and beauty, seems to dominate in the construction of some of them. Yet this plainness has far greater attractions than that parade of vanity which appears when bizarre and senseless ornamentation decorate the façade of a church. The Newton Baptist Church (Fig. 281) is simple and substantial, cruciform throughout, with a huge tower over the crossing. There is a large, round arched portal, with heavy columns in the jambs. Above it is an arcade at the height of the eaves, not to hold statues, but to let light into the building. The character of the building is quite Norman in style. Trinity Church, Boston, is like this one in being as decidedly cruciform, but all else is developed with the most admirable skill. At the entrance of the Trinity Church is a magnificent porch, with commanding towers at its ends. The tower at the crossing is one of the most imposing and striking productions of American architecture. This Trinity Church

FIG. 281.

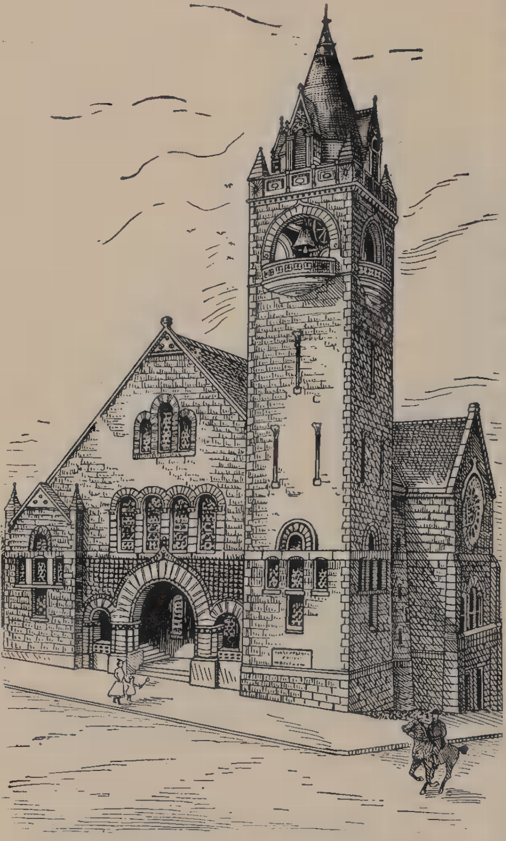


NEWTON BAPTIST CHURCH.

is demonstration of how independent and new is American ecclesiastical architecture.

§ **First Presbyterian Church, Duluth, Minn.** The façade of this Romanesque church (Fig. 282) is tripartite, having as central a triple arched portal, above which is

FIG. 282.

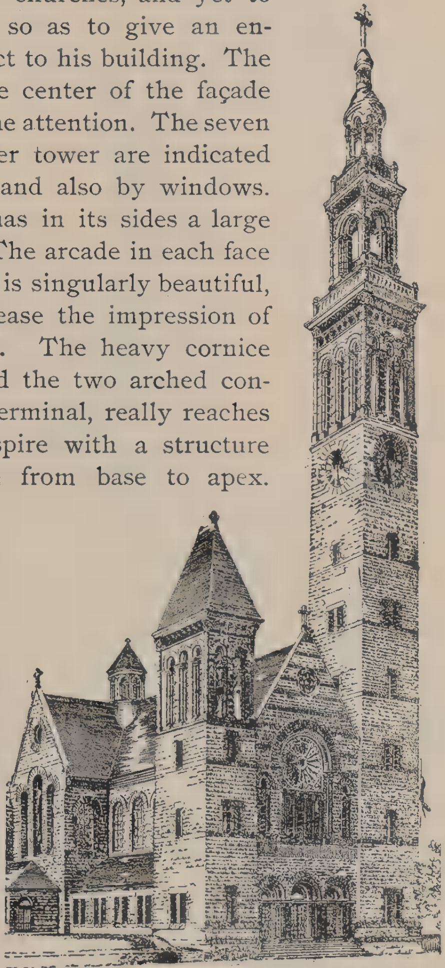


FIRST PRESBYTERIAN CHURCH.

a window-arcade with four openings, and still higher, a tripartite window. The portal opens into a porch, above which is the gallery. The central portion is flanked by two towers: one is built only as high as the roof, indeed, is placed under its shelter; the other is a massive, tall structure, beautiful in its finish. The belfry arches make the only considerable openings in its sides. A conical roof with dormer windows completes the tower. The transept arm is the portion assigned to chapel uses. By referring to the last three illustrations, the remarkable variety of buildings included in the modern Romanesque will become at once evident. These all are entirely unlike mediæval Romanesque.

§ **St. John's Roman Catholic Church, Jersey City.** There is shown in this edifice the ability of a modern architect to retain the constructive features of mediæval churches, and yet to handle the details so as to give an entirely modern aspect to his building. The two towers and the center of the façade (Fig. 283) attract the attention. The seven stages of the larger tower are indicated by string courses and also by windows. The upper stage has in its sides a large circular window. The arcade in each face of the upper belfry is singularly beautiful, and serves to increase the impression of the tower's height. The heavy cornice and balustrade, and the two arched constructions as the terminal, really reaches the height of a spire with a structure entirely tower-like from base to apex. The smaller tower is built in perfect harmony with its lofty companion. The center has a triple doorway and a magnificent window above, whose head is a beautiful rose-window. The cruciform building, the height of the clerestory, are imposing. The plan of this church is seen in Fig. 270.

FIG. 283.

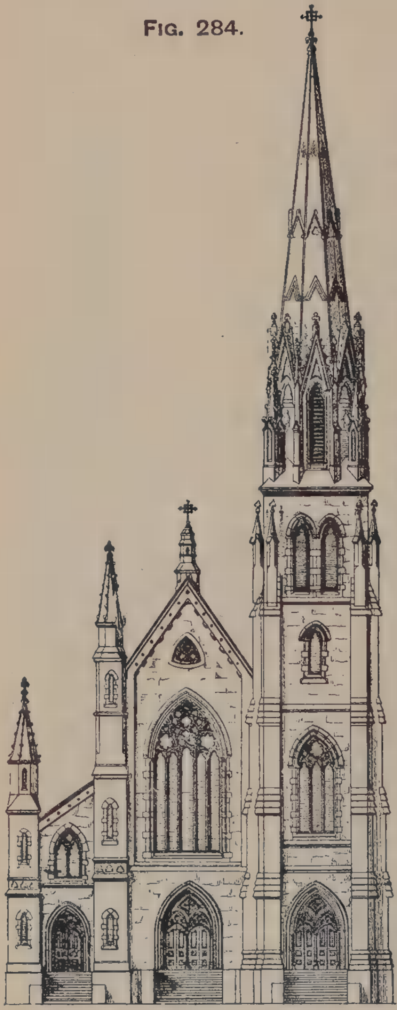


ST. JOHN'S ROMAN CATHOLIC CHURCH.

(3) MODERN GOTHIC STYLES.

§ St. Mary's Roman Catholic Church, New Haven.

FIG. 284.

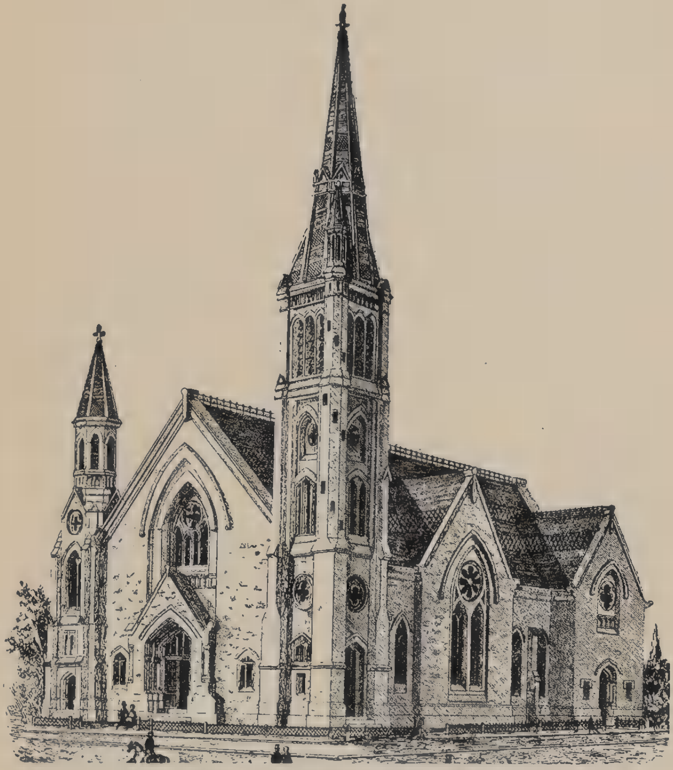


ST. MARY'S CHURCH.

The traditions of mediæval Gothic appear in every part of this façade (Fig. 284). The tower, with the spire, reaches daring height through steps of increasing beauty. The nave window is magnificent. The tower is banished from the left portal by substituting in place thereof a large square buttress, formed so as to be in harmony with the great tower. The architect adopted an original mode of calling attention to the spire. The portal which pierces its base is as large as the portal which is the entrance into the nave. The other side portal is much smaller. It is to be remembered that this church belongs to a parish, and makes no pretensions to cathedral proportions. It is severely plain.

No attempt is made to sculpture its front with marvelous forms. The church is a simple and beautiful Gothic edifice which gives to mediæval Gothic forms a modern setting.

FIG. 285.

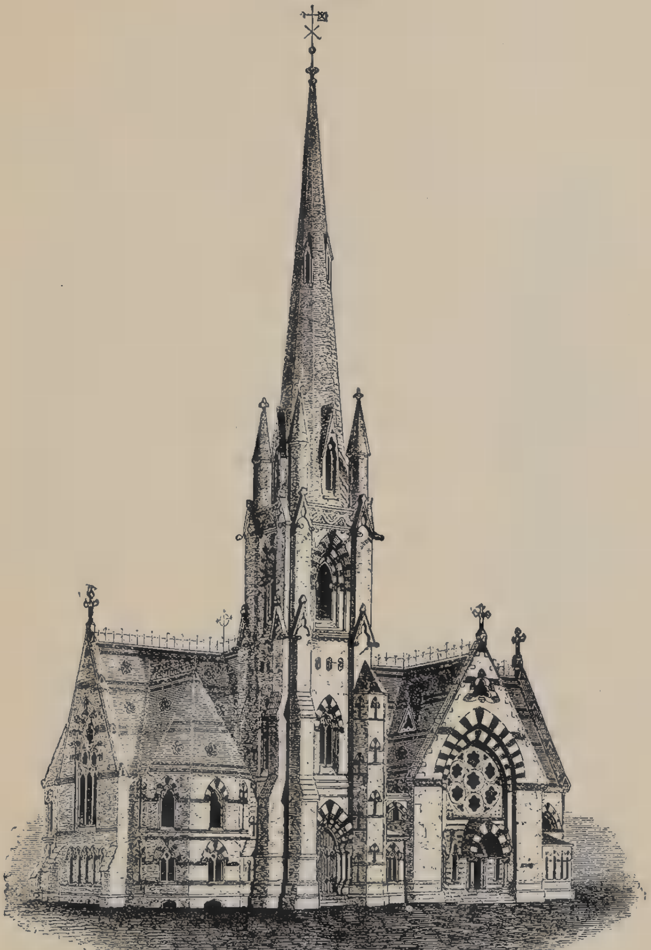


BROWN PRESBYTERIAN CHURCH.

§ **Brown Memorial Presbyterian Church, Baltimore.** This church (Fig. 285) is interesting because it exhibits an early stage in those efforts which sought to unite the chapel with the church so as to form one building. The chapel appears as a second transept to the edifice. The spire and the tower are worthy Gothic constructions. The three stories of the tower, upon which the spire is set, are beautifully varied by means of contrasted apertures. The pointed hoods above the windows could well be dispensed with; also, the towers have the appearance of being set at the corners of the building's front. Nevertheless, the church is so excellent a type that it has found great favor among us.

§ **West Spruce Street Baptist Church, Philadelphia.** When architects took the step of making the length of the church the front façade, they secured facilities which led to a complete change in the appearance of the church and furnished, also, a new type among modern churches. West Spruce Street Church (Fig. 286) has two transepts, and so is similar to the edifice just considered. But the tower is placed between the transepts. The entrances to the chapel and to the church are respectively in the tower and the transept. There is the highest architectural love displayed in this church. It is called the modern Italian Gothic, because stones of different color are employed in its adornment. Further than this variegation of color in the stones there is no suggestion in the church traceable to Italian architecture. The church is a triumph of American architects. Cathedral spires in Europe have the charm of rich sculpture, but they are not more gracefully proportioned than this spire, nor do they seem to leap more gladly into heights of the sky. The treatment of the transept, in which the entrance is placed, deserves attention. The pointed arch climbs up into the space of the gable. Reaching into the head of this arch is a large rose-window, whose lights are foliated forms. A baldachin structure is built out over the portal in this transept. The Gothic of this church is as beautiful as it is original.

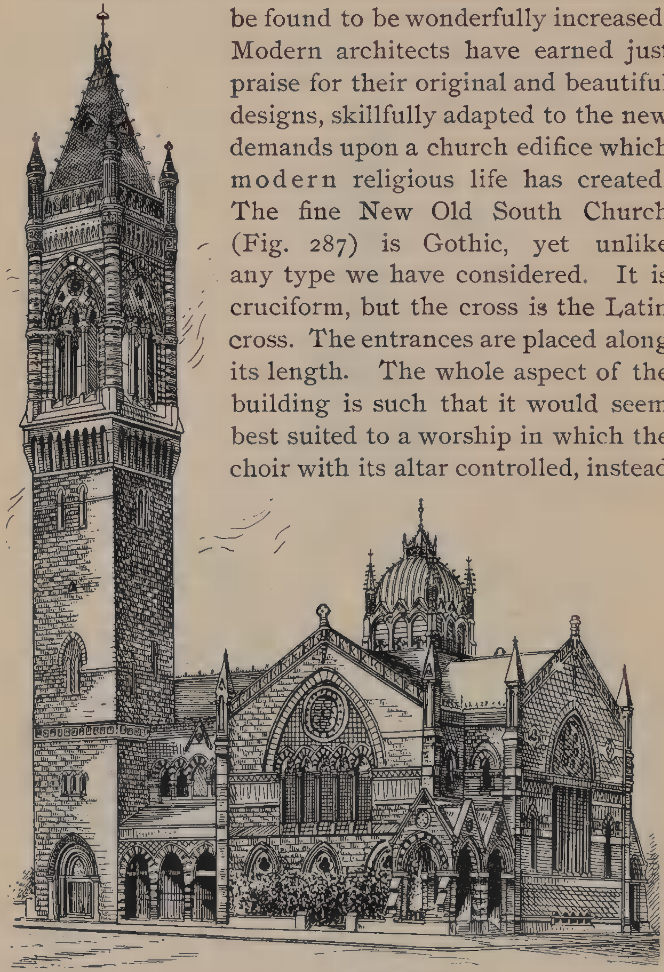
FIG. 286.



WEST SPRUCE STREET BAPTIST CHURCH.

§ **New Old South Church, Boston.** It is true that, if sculpture were united to the modern churches as it is with the ecclesiastical styles of the past, the charms of the modern churches would be found to be wonderfully increased. Modern architects have earned just praise for their original and beautiful designs, skillfully adapted to the new demands upon a church edifice which modern religious life has created. The fine New Old South Church (Fig. 287) is Gothic, yet unlike any type we have considered. It is cruciform, but the cross is the Latin cross. The entrances are placed along its length. The whole aspect of the building is such that it would seem best suited to a worship in which the choir with its altar controlled, instead

FIG. 287.



NEW OLD SOUTH CHURCH.

of the pulpit and its sermon. The tower is strictly modern in its whole spirit, and is to be approved. The appearance of filigree-work on the dome might have been judiciously avoided. Some minor criticisms of this nature may be rightly urged against the architecture of this church. Still, as a monument of the independence of the modern architect, and also of his genius, this church is of the highest importance. The American cities are being beautified by lovely structures in these architectural styles, inspired by modern skill and genius. Every year the older church edifices are being torn down by growing Church societies, and rebuilt in nobler architectural forms. These churches are church-homes. Without, they are tastefully built; within, they are handsomely adorned. There is a peculiar quiet in these sanctuaries; there is also lovely beauty. Such beauty is here as you find in those woodland retreats where no noble vistas of forest-trees are seen, but only the quiet fountain, the lovely shade, the sweet song-bird, and sunshine streaming down through the branches above.

E. THE ARCHITECTURE AND WORSHIP OF CHRISTIANS.

§ **The Earliest Christian Creed.** The bond of unity between all believers in Jesus Christ is their creed. The earliest formulated creed is that of Cyprian of Carthage (325 A. D). The creed is the following:

I believe
In God the Father,
In his Son Christ,
In the Holy Ghost.

I believe in
The forgiveness of sins
And eternal life
Through the Holy Church.

These are the essentials of Christian faith; they have inspired all the holy living of the followers of Christ; they have inspired all the manifold types of Christian theology; they have inspired the various forms of Christian worship; they have inspired the triumphs of Christian architecture.

§ **The Essential Requirements of Christian Worship.** The Church is composed of all believers in Jesus the Christ. Our Lord set aside from among them the presbyter, to teach his doctrine and to baptize in his name. The Church chose for themselves deacons to care for the sick and the poor. Christian worship, in all of its manifold character, began with this threefold distinction among believers. The sacraments instituted by Christ are two, those of the eucharist and baptism. Various branches of the Christian Church have instituted other sacraments. Christian worship consists of giving and receiving instruction in the Holy Word, and of administering and receiving the sacraments. The earliest Christian service, like the earliest Christian creed, was simple. The presbyter, standing within the tribune at one end of the room, narrated to the congregation before him instances in the life of Christ, then read the letters of the apostles, and gave a short homily. Afterwards prayer was offered, a song sung, and then all believers partook of the Lord's Supper.

§ **Worship and Architecture.** The Apostolic Catholic Church, which continued until about 321 A. D., retained the simple forms of worship under the direction of the presbyter. The modern non-liturgical Protestant Catholic Churches also maintain this simple mode of worship with slight variations. The ancient Ark and Basilican styles (pages 42–61) and the modern styles (pages 374–416) represent the architecture fostered by this form of Christian worship. An elaborate liturgy was early developed in the Christian Church, as early as the sixth century. The Oriental liturgy is a sacred drama exhibiting the life of Christ. "The prayers and the reading of the Scripture lessons are accompanied by symbolical acts performed by the priest and deacons; such as lighting and extinguishing candles, opening and closing doors, kissing the altar and the Gospels, crossing the forehead, mouth, and breast, swinging the censer. All this is accompanied with frequent changes of liturgical vestments, processions, genuflexions, and prostrations." The Latin mass is the service around which gathers interest in the worship of the Latin Church and all its subsequent developments under the spirit of the Papal Church. The mass celebrates the passion of Christ, and the celebrants are clothed in rich vestments. A strict order of procedure, as well as certain symbolical acts, are prescribed by the Church authorities. All the most remarkable styles of Christian architecture have grown up in connection with these two great branches of the liturgical Churches. These styles are the Byzantine (pages 66–91), the Romanesque (pages 92–170), the Gothic (pages 171–287), the Renaissance (pages 322–373). The Protestant Episcopal Church is a liturgical Church, but only so far as to have read at the altar the prayers, collects of the Church, and the Ritual connected with the celebration of the Lord's Supper. The Tudor Gothic style and the Elizabethan Renaissance style, together with many beautiful churches in the modern styles, represent the architecture of this great Protestant body.

§ **Architecture and the Christian Life.** That beautiful life which the Creator placed in the seed of the flowers of the field has little promise for the inquiring eye when only the husk of the seed is seen, or the tender shoot as it comes forth from the ground and puts forth its modest leaves. But continued growth must develop all its capacities, and soon it unfolds its petals, which gladden the eye, under the glow of sunshine, with rich colors, such as the raiment of Solomon in all his glory could not excel. So that beautiful life, which the Creator placed in the heart of man, the seed of the Christian religion, in its first appearance hath no form nor comeliness, no beauty such as that we should desire it. But grow it must, grow in the beauty of holiness, transforming human life into the divine likeness. Also Christians build for themselves the house of God; at first it is simple and plain, but this house of God must also grow in beauty under the power of the Christian spirit. Then Christian architecture appears, an inflorescence of the Christian life made manifest in wood and stone.

A BRIEF GLOSSARY OF TECHNICAL TERMS.

A.

Abacus, the upper part of a capital or of a pier.

Aisle, the walks adjacent to and at the sides of the nave; also any of the passways in a church.

Altar, the elevated table for the celebration of the eucharist; also the inclosed portion before the pulpit in the modern church, where the communion-table is placed.

Ambo, a pulpit on the side of the choir in the early basilica, from which the Scriptures were read.

Antæ, the ends of a building formed into the shape of piers.

Apse, the semicircular or polygonal termination to the church behind the choir.

Arcade, a range of arches supported by columns or piers.

Architrave, the chief beams which rest upon the capitals of columns; the lowest part of an entablature.

Archivolt, the architrave moulding of an arch, following its curvature.

Attic, the half-story above an entablature, or above the cornice to the main part of an edifice.

B.

Baldachin, a vaulted canopy, supported by shafts or columns, and placed over an altar or portal.

Balustrade, an open wall at the edge of the roof in the Gothic style, constructed by means of balusters.

Baptistery, a separate building, containing the baptismal font, and used for the celebration of the baptismal rite, especially in the early church.

Basilica, the name given to the type of church edifice which was built in the time of Constantine and to similar structures of later times.

Bay, a compartment of an arcaded wall, adjacent columns or piers marking the limiting lines.

BEAD, a small cylindrical moulding common in most styles of architecture.

BELFRY, the stage or story of a tower in which the bells are hung.

BILLET, a moulding much used in the Norman style, and resembling sections of a round stick.

BOSS, the keystone at the intersection of the ribs of a groined vault; often its face was sculptured with foliage, sometimes with curious forms.

BUTTRESS, the masonry added to a wall, to offer, by its weight, a counter-resistance to the thrusts of a roof or vault. The flying buttress is the portion of an arch thrown to a wall from the summit of a pier or a buttress, in order to transfer a thrust to the resisting buttress.

C.

CAMPANILE, the name first used in Italy for the belfry tower.

CANOPY, the covering above a niche, or an altar, or a choir-stall; also the covering above a tomb.

CAPITAL, the upper part of a column, pier, or pilaster.

CARYATIDES, piers or columns fashioned into the shape of a woman.

CATHEDRAL, the church in which the throne of the bishop is placed.

CAVETTO, a concave moulding.

CHAMFER, the cutting off of the edge of any work in a slight degree. Chamfer-work was sometimes plain, sometimes hollowed out, often moulded.

CHANCEL, the choir portion of a church, where is found the altar, a name used in connection with the modern liturgical churches.

CHAPEL, a smaller church, or a part of a greater edifice set aside for divine worship; also the room for social gatherings in modern non-ritual churches.

CHOIR, that part of a church where a liturgical service is performed by the clergy; also the place where the singers are stationed who furnish the music in a modern church.

CLERESTORY, the portion of the nave-walls rising above the aisles and pierced with windows.

CLOISTER, a square plot connected with the mediæval church, and surrounded with a walk for the use of the clergy; it was covered with a groined roof.

COFFER, a deep panel in a ceiling.

CONSOL, a bracket of peculiar form, having contrasted volutes at the two ends; the intervening lines are flowing curves.

CORBEL, a projecting stone from out of a wall, whose purpose is to support a vaulting shaft or any other weight. These ends were often beautifully carved.

CORBEL TABLE, the projecting cornice or parapet, supported by corbels.

CORNICE, the projecting upper termination of a wall, specially prominent in classical architecture.

CORONA, the deep, vertical hollow of the cornice between the upper and lower mouldings.

CROCKET, an ornament upon small gables, hood-mouldings, pinnacles, having generally the form of a winding stem and leaves.

CRYPT, a vaulted chamber under the choir.

CUPOLA, a spherical covering to a building or to any part thereof.

CUSP, the point of intersection made by the different foliations of a tracery.

CYMA, a moulding whose curve is a wave-line, one part convex, the other concave.

D.

DOME, the commanding cupola on the roof of a cathedral church; also any spherical roof.

E.

ECHINUS, the egg-carved moulding beneath the capital, also called ovola.

ENTABLATURE, the horizontal mass above a range of columns, composed usually of architrave, frieze, and cornice.

F.

FAÇADE, any face to a building especially applied to the entrance front.

FILLET, a narrow lineal-like band separating various mouldings, such as hollows and rounds; also the narrow lines between the flutes of Corinthian and Ionic columns.

FINIAL, the pyramidal termination set upon a buttress, spire, or pinnacle.

FLUTE, the vertical concave channel in the sides of a column.

FRESCO, a method of setting colors in a wall before the plastering has dried; it was combined with painting as an art, and received the name of fresco-painting.

FRIEZE, the portion of the entablature above the architrave and below the cornice; it received the greatest enrichment from sculpture.

G.

GABLE, the end of a roof-structure, closed up by the end wall of a building being carried up in a triangular shape; an ornamental gable is called a pediment.

GARGOYLE, a projecting waterspout, carved usually into curious or grotesque forms.

GROIN, the line of intersection of two vaults; also the curved spaces between vaulting ribs; sometimes the system of ribbed vaulting.

H.

Hood-moulding, the drip-stone above a window or doorway.

I.

INTERCOLUMNIATION, the clear space between columns.

J.

JAMB, the side-posts of a doorway or window-aperture.

L.

LANTERN, the open turret placed over the crossing or upon a dome, to transmit light within.

LIERNE, a minor rib in the groined vault, introduced to form stellar and fan-patterns in the vaulting surface.

M.

MAUSOLEUM, the splendid tomb or sepulchral chapel for the distinguished dead.

MODILLION, the sculptured block or bracket under the cornice in the Corinthian style, found in a modified form in the Ionic style.

MOSAIC, decorative designs or pictorial representations executed by means of small blocks of colored stone or by squares of colored enamel.

MOULDINGS, any one of the rounds or hollows which are wrought into the wall or affixed thereto in order to make transitions or to add beauty.

MULLION, the perpendicular stone pieces, sometimes resembling columns, sometimes slender piers, which make the bays or lights to windows.

MUTULE, the rectangular blocks under the corona of the Doric cornice.

N.

NARTHEX, the arcaded porch before the entrance of a Christian basilica.

NAVE, the part of the church leading toward the choir and for the use of the laity.

NICHE, a recess in the wall or buttress, or doorway, wherein was placed some statue.

O.

OGEE, a name applied to a compound curve, composed of a convex and a concave, which is found in mouldings, and even in arches.

ORATORY, a small chapel for prayer connected often with churches, often with private houses.

OVOLO, the name of a moulding resembling the convex part in the head of a Doric capital.

P.

PANEL, the space included within mouldings in doors or walls. They are compartments, shallow or deep, designed for ornamental effect.

PARAPET, a low wall along the edge of a roof, to lean against, often made very ornamental in the Gothic style.

PEDIMENT, the gable portion of a portico or portal, being obtuse angled in classical, but acute in pointed architecture.

PENDENT, a kind of inverted cone set at the intersection of groins in fan tracery.

PENDENTIVE, the arch cutting off the corners of a square internally, so that a foundation may be made for the superimposed octagon or dome.

PERISTYLE, a range of columns surrounding an edifice. A peristyle is circular or quadrilateral.

PIERS, masses of masonry to support arches.

PILASTER, a projection on a wall or pier having resemblance to columns through a kind of capital for its upper termination.

PILLAR, a pier with clustered columns upon its sides, being either round or polygonal.

PINNACLE, pyramidal or conical caps to a buttress; also placed along the lines of the parapet. The pinnacle was useful as increasing weight to resist thrusts; also ornamental because of the forms given them.

PORCH, the structure before an entrance, forming a covered shelter.

PORTAL, the deeply recessed and richly ornamented entrance to cathedral churches.

PORTICO, the entrance to a building in which columns and entablature are the principal features.

PRESBYTERY, the earliest designation of the space behind the altar where the clergy sat.

Q.

QUATREFOIL, a panel or perforation in the shape of a four-leafed flower.

R.

ROSE-WINDOW, a circular window with radiating tracery, beautifully developed in the Gothic style.

S.

SCREEN, the ornamental structure separating the choir or an aisle-chapel from the rest of the building.

SCROLL, a spiral ornament found in the frieze band and elsewhere; a word applied also to the volute of a column.

SHAFT, the portion of a column between base and capital; also small, slender columns are called shafts.

SHED-ROOF, a roof with one set of rafters falling from a higher to a lower wall.

SOFFIT, the under face of an arch or an entablature.

SPANDREL, the space between an arch and the label or stone-course above.

SPIRE, the pyramidal or conical termination to towers.

STRING-COURSE, horizontal mouldings dividing a wall into stories.

STYLOBATE, the substructure upon which a colonnade rests.

T.

TABERNACLE, a niche or recess for a statue.

TAMBOUR, the cylindrical base upon which a dome rests.

TOWER, a strong and elevated structure attached to an edifice, usually quadrangular.

TRACERY, the ornamental filling in windows, panels, and elsewhere.

TRANSEPTS, the portion of the church between and at right angles to the nave and choir.

TRANSOM, the horizontal construction dividing a window into its stages.

TREFOIL, an ornamental design imitating a three-leafed flower.

TRIBUNE, a name given to the presbyterium in a basilica.

TRIFORIUM, the arcade between the nave-arches and the clerestory.

TYMPANUM, the space included within the gable or arch to a door or window.

V.

VOLUTE, the scroll in the Corinthian and Ionic capitals.

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